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UNIVERSITY INDUSTRY INTERFACE 2001

SIDBI TO PROMOTE MANAGERIAL TRAINING



Association of Indian Universities



कोटा खुला विश्वविद्यालय, कोटा

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निम्नलिखित पदों हेतु निर्धारित प्रपत्र में आवेदन पत्र आमंत्रित किए जाते हैं जो पूर्ण कर कार्यालय कुलसचिव, कोटा खुला विश्वविद्यालय, रावतभाटा रोड, कोटा में दिनांक 23 3 98 को साय 5 बजे तक जमा हो जाना चाहिए। उपरोक्त आवेदन प्रपत्र 20/- रुपये का भारतीय पोस्टल आर्डर कुलसचिव, कोटा खुला विश्वविद्यालय, कोटा के नाम या 20/- नकद देकर अथवा डाक द्वारा 35/- रुपये का भारतीय पोस्टल आर्डर भेजकर कुलसचिव कार्यालय (संस्थापना अनुभाग) से कार्यालय समय में प्राप्त किए जा सकते हैं।

सेवारत आवेदकों को आवेदन पत्र अपने नियोक्ता के माध्यम से ही भिजवाना होगा। सेवा निवृत्त व्यक्ति आवेदन न करें।

क्र.सं.	पद का नाम	पदों की संख्या	वेतनमान*	श्रेणी**
1	आचार्य	2	4500-7300	कंप्यूटर विज्ञान-आरक्षित (अ जा) राजनीति विज्ञान-अनारक्षित
2.	निदेशक (मुख्यालय)	2	4500-7300	विज्ञान एवं तकनीकी, पाठ्य सामग्री उत्पादन एवं वितरण-अनारक्षित
3	सह आचार्य	5	3700-5700	भौतिक शास्त्र-आरक्षित-अ जा रसायन शास्त्र-आरक्षित-अ पि वर्ग पुस्तकालय विज्ञान, इतिहास एवं भारतीय परंपरा एवं संस्कृति-अनारक्षित-3
4	सहायक आचार्य	2	2200-4000	हिंदी-आरक्षित-अ जा भोजन एवं पोषण-आरक्षित-अ ज जा
5	उप कुलसचिव	3	3000-4500	आरक्षित-अ पि वर्ग-1, अनारक्षित-2
6	सहायक पुस्तकालयाध्यक्ष	1	2200-4000	अनारक्षित
7	प्रोड्यूसर स्टूडियो	1	2200-4000	अनारक्षित
8	प्रोग्राम अधिकारी	1	2200-4000	अनारक्षित
9	सहायक प्रोडक्शन अधिकारी	1	2200-4000	अनारक्षित
10.	लेखाकार	5	1640-2900	आरक्षित-अ जा -1, अ पि वर्ग-1, अनारक्षित-3
11	कनिष्ठ लेखाकार	4	1400-2600	अनारक्षित
12	स्टेनो	2	1400-2600	अनारक्षित (हिंदी/अंग्रेजी)

*राजस्थान सरकार द्वारा समय-समय पर जारी नवीन वेतनमानों के अनुरूप संशोधन होने की संभावना।

**पदों का संवर्ग वार आवंटन कार्मिक विभाग के आदेश क्र. F-15(24)DOP/A-II/75(65/97) दि. 20/11/97 एवं प-15(24) कार्मिक/क-II/75(68/97) दि. 25/11/97 जो कि विशेषाधिकारी उच्च शिक्षा विभाग से प्राप्त पत्र क्र. प-3(6) शिक्षा-4/95 दि. 17/2/98 के अनुसरण में प्रबंध मंडल के अनुमोदन उपरान्त किया गया है।

पदों के लिए वाछित योग्यता व अनुभव का विवरण आवेदन पत्र के साथ उपलब्ध करवाया जाएगा।

शर्तें :

- सादे कागज पर एवं निर्धारित तिथि के पश्चात प्राप्त आवेदन पत्र किसी भी अवस्था में स्वीकार नहीं किए जाएंगे। अपूर्ण आवेदन पत्र व ऐसे आवेदन पत्र जिनके साथ आवश्यक प्रमाण पत्र संलग्न न हो, को बिना किसी सूचना के रद्द कर दिया जाएगा।
- आवश्यकतानुसार पदों की संख्या में कमी एवं वृद्धि करने का अधिकार विश्वविद्यालय को होगा।
- चयनित उम्मीदवार को विश्वविद्यालय के किसी भी क्षेत्रीय केन्द्र अथवा कार्यालय में नियुक्त किया जा सकता है।
- चयन समिति विशेष प्रकरणों में योग्यता एवं पात्रता में शिथिलता प्रदान कर सकती है, परंतु प्रबंध मंडल के अनुमोदन के बाद ही इसे अंतिम माना जा सकेगा।
- योग्यता एवं पात्रता रखने वाले सभी अभ्यर्थियों को साक्षात्कार के लिए बुलाए जाने के लिए विश्वविद्यालय बाध्य नहीं होगा तथा साक्षात्कार में आने-जाने के लिए किसी प्रकार का यात्रा भत्ता देय नहीं होगा।
- एक से अधिक पदों के लिए अलग-अलग आवेदन पत्र प्रस्तुत करना आवश्यक है।
- क्रम संख्या 5-उप कुलसचिव-अन्य पिछड़ा वर्ग हेतु पूर्व विज्ञापन सं. 1/97 दिनांक 17-7-97, क्र स 10 लेखाकार अ जा /अ पि वर्ग/अनारक्षित एवं क्र सं 11 कनिष्ठ लेखाकार अनारक्षित हेतु पूर्व विज्ञापन संख्या 4/97 दिनांक 8-12-97 तथा क्र स 12 स्टेनो-अनारक्षित हेतु पूर्व विज्ञापन संख्या 2/97 दिनांक 30-9-97 के तहत जिन अभ्यर्थियों द्वारा आवेदन किया हुआ है, उन्हें पुनः आवेदन करने की आवश्यकता नहीं है, परंतु आवेदन पत्र प्रस्तुत करने के बाद कोई अहर्ता प्राप्त की हों तो सादे कागज पर अलग से सूचना प्रेषित की जावे।

कुलसचिव

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Editor :
SUTINDER SINGH

Student Unrest* A Critique

N.N. Prahallada*

In the contemporary context student unrest has become a constant phenomenon in most colleges and universities in our country. Hardly a week passes without the newspapers reporting about students' agitation. 'Strikes' and *dharnas* by college students have almost become a daily feature and the university campus today presents a dreary picture of confusion. Class conflicts, caste distinctions and cliques, fissiparous tendencies, cut throat competition and rivalries, which dominate public life have unfortunately entered the educational institutions polluting the atmosphere, and indiscipline among students is assuming alarming proportions.

Acts of indiscipline range from simple disobedience of the teacher and defiance of authority to 'law and order problems' manifesting in the form of arson, assault, burning of buses, looting of shops and even manhandling of teachers. All these have caused concern in the mind of public over the future of democracy in our country.

The Causes

Why do students misbehave or create problems of discipline? Are they really mad? Are they habitual trouble makers? Do they want to exhibit the youthful spirit of exuberance? Certainly not.

Indiscipline is a symptom of some canker underneath. Causes of indiscipline have been analysed very well by responsible people from all walks of life.

Indiscipline among students, the fall in standards and the general deterioration of academic life in universities is largely due to the loss of leadership of teachers. The contemporary teachers do not possess proper leadership qualities. Most of them are not able to command the respect of their students either by their scholarship in subject areas or by their personalities. They are just serving the educational institutions as paid workers like other employees. In the eyes of students they have neither any professional status nor social status. This has led to mounting indiscipline in colleges and universities.

Overcrowding in educational institutions has made it impossible for the teacher to contact students individually or give personal guidance. In other words it creates a 'psychological distance' between the teacher and the taught. As a result many misgivings, misapprehensions, and even legitimate grievances of the students go unnoticed and those which can be easily redressed burst out into acts of indiscipline.

The general deterioration of moral values in the society has resulted in cynicism, pessimism, avarice and rebellious tendency among the present day youth. Apart from this many institutions are poorly equipped and lack facilities for proper learning. This creates an unhealthy atmosphere to the extent that students struggle against the authorities and as a last resort coerce them to grant their demands. Many a time demands that are denied lead to agitations.

Owing to ever increasing economic difficulties there is a widespread frustration among the college and university students. The basic urges of the students are not being satisfied either by the parents or by the univer-

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sity authorities. The general economic distress suffered by the parents is being felt by the students.

Lack of job opportunities, chronic parental poverty, aimless education which is not job-oriented, corruption in public life etc are all creating undue depression in the minds of students which is resulting in widespread unrest and frustration.

Influence of anti-social elements, maladjusted students, influence of crime and cheap sex literature, problems of students coming from broken families, influence of romantic and crime films, social prejudices etc are also directly or indirectly contributing to the student unrest on the college and university campuses.

It is a sad fact that politicians use young students as pawns in the political game and as a result they become the victims of political exploitation.

Another major cause of indiscipline is the problem of unemployment that looms large before students. This naturally causes anxiety, makes them desperate and pushes them into acts of indiscipline.

There has been a great deal of unplanned and uncontrolled expansion of higher education with a large increase in substandard institutions that are academically non-viable.

The curriculum, methodology and examination system is too rigid without any novelty/innovation. In most of the colleges students are deprived of basic academic amenities like equipped libraries, furnished laboratories, proper playgrounds and good hostel facilities. Lack of drinking water facilities, cycle stand, urinals, lavatories proportionate to student strength etc aggravate the unrest.

In recent years there have been indiscriminate admissions to various courses and student motivation has as a result deteriorated. At present most of the students join the college not with a spirit of adventure and thirst for knowledge but simply to satisfy the requirements for getting a degree. In India, a university degree is still the primary passport for any type of employment — general or professional. Unfortunately the degree is losing even this potential. Universities are thus becoming simple degree mills, manufacturing armies of unemployed educated youth in various fields.

We cannot blame the entire student community for the unrest. Many a time a large number of students are not only uninfluenced but are totally unsympathetic to student activists. The will of the few is often paraded as that of the majority. If a study is made of the student activists it will be found to our surprise that most of them are students with indifferent or poor academic record or those coming from institutions with low standards of teaching and discipline. Having lost in the competition, they are tempted to seek shortcuts to honours.

The Remedies

Many a time student indiscipline starts from the classroom itself. Therefore the problem of indiscipline should be tackled right at the classroom level. This naturally calls for understanding the classroom management techniques.

The most decisive factor in a classroom atmosphere is the teacher's method of management. This is very essential for keeping the class attentive and to involve the students in productive independent activities. Even today many of us view the teachers' functions in the classroom as maintaining discipline, control, keeping order, motivation, and establishing a positive attitude towards learning, among others. Newly recruited teachers often fear that they will not be able to control the class or that the students may not respect them.

Although classroom management is often related to dealing with misbehaviour, research on classroom discipline and on behaviour modification generally suggests that this approach puts the cart before the horse. It is not possible to get rid of behaviour problems through punishment because it often makes the situation worse. The success of classroom management lies in the things the teacher does ahead to create a congenial learning environment and a low potential for trouble.

Research findings of several classroom studies reveal that the teachers' methods of dealing with problems of indiscipline are unrelated to the frequency and seriousness of such problems. The measures adopted fail to differentiate between teachers who solved discipline problems and those who could not cope with them. There are many differences among the teachers in the measures developed. None of these tackle indiscipline, in the usual sense of this word. Instead they are "classroom management techniques." These are "teacher behaviours" that increased the time the students spent in constructive activities, and led to successful resolution of minor problems before they assumed bigger proportions. That is why it is said that successful classroom management is primarily a matter of preventing problems and not just the ability to deal with them after they emerge.

Of course, problems emerge in all classrooms and some students require special treatment. Teachers should be tactful in dealing with such students. The teachers must like the students and respect them as individuals. They need not be overdramatic but it is important to get close to the students, specially during private meetings. They must also establish and maintain credibility.

Credibility can be established by making sure that words and actions go together. If a teacher earns the respect of the students then it will be easy for him to

practice classroom management techniques. This will also help students accept responsibility for their own behaviour. When a teacher establishes fair rules and enforces them consistently, the rule breakers can get angry only with themselves. However, if the teacher lacks credibility because he or she makes empty threats or enforces the rules inconsistently, the rule breakers, who are punished, are likely to retain bitter feelings and become violent. To prevent this the teachers must carefully think over what they really expect of their students and then control their own behaviour in tune with students' expectations.

The question is how to bring down student unrest if not to eradicate it completely. Maximum freedom to the students must be given because that is the basic concept of democracy. But freedom, it must be ensured, is, not misused but rather used only for constructive work. Students should be made to realise that they should not squander their lives in unproductive activities like strikes and violence. The burden of such activities will be theirs. They should safeguard their academic life to ensure a better future for themselves. The benefits of such a behaviour will be peace and order on the campus and success in examinations.

Student Participation

Right thinking persons the world over tend to look upon "student participation" or "student involvement"

as a promising prophylactic against campus disturbances and student unrest which frequently causes violence. Great educationists and social thinkers too have favoured the idea.

In recent years many university students are demanding that "student representatives" be allowed as observers on certain university bodies. Some of the teachers emphatically reject the idea as they fear that even as observers students would further politicise the already politicised atmosphere of the university.

Student participation does not mean permitting or bowing to student rowdyism and goondaism. It can only mean that students should take part in the process of decision making. This includes, among other things, deciding on the syllabi, new courses, teaching, examination, internal assessment, provision of facilities, discipline and proper behaviour, the nature, management and control of student activities and their associations/student's union etc.

Participation does not mean dictation. The admission of students to the decision-making process does not mean that others abdicate their judgement and responsibility. If we set the ball rolling in the right way, student participation will certainly provide healthy channels for expression of their innate energies and potentialities. This will certainly result in a new kind of student leadership and combat student unrest.



INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Kanpur-208016

Notice for Admission to Ph D, M Tech and M Sc 2 Years Programmes

Applications are invited from Indian citizens for admission for the session commencing from July 24 1998 in the following programmes

Both PH D and M Tech : ENGINEERING : Aerospace ★ Chemical ★ Civil Engineering ★ Computer Science & Engg ★ Electrical ★ Industrial and Management Engineering ★ Materials & Metallurgical ★ Materials Science ★ Mechanical ★ Nuclear Engineering & Technology

Only PH D : SCIENCES : Chemistry ★ Mathematics ★ Physics ★ Statistics

HUMANITIES & SOCIAL SCIENCES : Economics, English (Literature and Linguistics) ★ Philosophy ★ Psychology ★ Sociology

Only M TECH ENGINEERING : Environmental Engg & Management ★ Laser Technology.

Minimum Qualifications for Ph D : An M Tech/ME/M Sc/MA in the respective or allied area Applicants with BE/B Tech who possess a valid GATE score may also apply Candidates for Ph D in Sciences and HSS must have a valid GATE/UGC/CSIR score For M Tech A BE/B Tech in Engg or an M Sc and GATE.

MASTER OF SCIENCE (M Sc) : Programmes are available in following disciplines ★ Chemistry ★ Physics ★ Mathematics ★ Statistics

Minimum Qualifications A Bachelor's degree (or its equivalent as recognised by the Institute) with at least 55% of aggregate marks in Chemistry, Mathematics and Statistics and 60% in Physics.

General Information : Financial aid in the form of teaching/research assistantships is available. ★ 50 percent tuition fee waiver for Ph D/M Tech students on Assistantship Additional 25 percent tuition waiver for Ph D students ★ 50 percent tuition fee waiver for M Sc (2 year) students on case to case basis. ★ Reservation 15% for SC and 7.5% for ST in each programme ★ Sponsored and part-time candidates are also considered for M Tech and Ph D Programmes Sponsored candidates do not require GATE qualification.

How to Apply :

Application forms and detailed information can be had from the Assistant Registrar (Academic), IIT Kanpur-208016 by sending a Bank Draft only for Rs. 200 (Rs. 100/- for SC & ST candidates) payable to Registrar, IIT Kanpur, alongwith a self-addressed stamped (Rs. 10) (for M Tech/Ph D) and Rs. 5/- (for M Sc) strong clothlined envelope of 23 x 17 c.m.

Separate application must be sent for each programme of study.

Last date for postal requests for application forms is April 07, 1998 Forms can also be obtained personally against payment through bank draft from the Academic Section upto April 15, 1998

Last Date for Receipt of Completed Application form : April 15, 1998.

Strategies to Improve Practice Teaching

Anitha D. Shetty*

Introduction

The quality of teachers depends upon the soundness of the teacher education programmes. The Education Commission (1964-66) has stressed "Investment in teacher education can yield very rich dividends, because the financial resources required are small when measured against the resulting improvements in the education of millions. First rate teacher training institutions can thus play a crucial role in the development of education".

The programme of teacher education requires closer scrutiny and improvement. Many recommendations have been made by various commissions. Unfortunately, by and large, not much is implemented. The quality of training institutions remains, with a few exceptions, either mediocre or poor. Competent staff are not attracted, utility realism are lacking in the curriculum programme of work which continue to be largely traditional, set patterns and rigid techniques are followed in practice teaching with a disregard for present day needs and objectives (*Education Commission, 1966*).

Suggestions for improvement of different aspects of teacher education have pointed out different aspects like :

- contracts by teacher education institutions with schools, universities & among themselves,
- admission procedures,
- organisational structures,
- curriculum,
- desirable qualifications of teacher educators,
- methods of teaching,
- student teaching (Practice Teaching).

Some improvements are seen in areas like admission, curriculum, qualification of teachers etc. There is a need to improve upon the very important component of teacher education, the practice teaching.

Teaching as Profession

"Teaching" is a profession like medicine or engineering. Like the other professions, in teaching also, there is simulated activity, the microteaching, where a student teacher practices on specific teaching be-

haviour under controlled conditions. Teaching profession too has its own specific skills like Explaining, Questioning, Probing, Introducing, Closure, B.B. Work, Using Teaching Aid, and Experimentation to name a few.

Practicing the Skills

Micro Teaching : In teacher education institutions, the skills are practiced through microteaching. Then comes the very crucial stage, that is, the practice teaching. This is the phase, where the student teachers face the real school situations. Practice teaching is essentially a joint responsibility of teacher training institution and the school involving teacher educators, prospective teachers and school teachers. Teacher educators help in facilitating, guiding the activities before, during and after practice teaching through which student teacher has to progress. The role of the school teachers lie in extending cooperation to teacher educators and the student teachers in teaching.

The Practice Teaching

The practice teaching as prevalent in most parts of the country at various stages especially at secondary level teacher preparation continues to remain the weakest link in the entire system of teacher education.

Some of the gaps identified in the NPE, 1986 which have direct relationship with practice teaching are .

- It does not adequately meet the requirement of the school system.
- It lacks appropriate blend of theory & practical components.
- It fails to develop the competencies/skills for becoming an effective teacher.

Greater importance needs to be given to practice teaching.

Preparation for Practice Teaching : Planning for Practice teaching should be done at the closure of the previous academic year, so that there are no loopholes at the last minute.

When the schools allow student teachers to get trained in their schools, they in turn should get some benefits too. These programmes should be organised at such times of the year when the teachers are busy

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correcting papers. It should not be organised at such a time when there is very little time left for the mid-term examinations, and there are hardly any units left to be taught.

While doing yearly planning for teacher education programme, all the other aspects of curriculum transaction should be planned in such a way that, prime-importance is given to practice teaching. This is so because this phase moulds the student teacher how he/she has to behave in the real school environment. The importance may be enhanced in the following way.

— Preparation and planning before practice teaching.

Most crucial factors in the teaching practice situation are finding out as much as possible about the school before hand, selecting appropriate content, deciding the best methods of presentation and writing the actual lesson notes.

Preliminary Visit : Enable the student teacher to meet the head teacher, the subject teachers, the supervisors, the rest of the staff. It helps him/her become acquainted with his subject teacher, the class he/she will be teaching, to get to know the resources of the school and to gather specific information relevant to the work he/she will undertake during the practice. It is also helpful to get to know something of the school's expectations of him with respect to time of arrival, attendance at morning assembly, involvement with extra-curricular activities, free periods, dress, general appearance.

It is important to find out details of the library, teaching aids he may use, apparatus required etc. It is also very essential to get information on the children you will be working with, and the subject areas you will be teaching. This kind of information is crucial to know where to begin the work. Unwittingly going over which is already covered or beginning at a level beyond the student's understanding can result in a disastrous start. The source of information of this nature is the class teacher. The preliminary visit also gives the opportunity to ascertain details of textbooks, worksheets and other material used by the class.

Details of time table should be recorded. Duration of the periods, indication of timings on Saturdays, end of the month or any such special arrangement needs to be taken care of. Students who have to teach Std. XI (Science stream) should take down the practical time table, and if possible, include one or two classes in practicals also.

What do you do when essential information you need is not forthcoming?

You cannot complain to the head or ask the students. The best course is to ask the supervisors of the school or still better report to the college supervisor who will be with you during the practice.

(a) Scheme of Work

Two important tools in the preparation for practice teaching are — scheme of work, lesson planning/notes. The broader aims (general objectives), will provide a focus for a student's scheme of work and the more specific objectives, the starting point for individual lesson planning.

The scheme of work in the context of school practice may be defined as the part of a class syllabus that the student will be required to teach during his practice teaching. In addition to its primary function in providing an outline of the subject matter and content, it may also include information on organisational matters, evaluative procedures and ancillary aids. It is also necessary to find out what has gone before in the particular area he will be responsible for and include some references to this in the scheme. It will be a survey of the work, he will undertake and will enable him to clarify his own thinking and to develop those particular curriculum experiences which he may feel will require more time and attention in preparation. This scheme should not be seen as fixed and rigid. Modifications may be made to it subsequently in the light of new ideas or further experience of the children. The criteria to bear in mind when planning one's scheme in this context are, continuity in learning, progress and experience.

This scheme of work is something similar to the daily log book a teacher prepares. This will give an overall idea about what curricular and co-curricular activities, a student teacher intends to do during practice teaching. If every student teacher prepares a scheme of work for his/her work the teaching will occur in a systematic and effective way.

The following information may be there in a scheme of work: class, no. of students, subject to be taught, previous knowledge and experience of the class in respect of the content, no. of lessons to be taken, name of the unit, how the content is going to be taught (lesson wise), references, and means of evaluation.

(b) Lesson Planning

Considerable thought must be given to the planning of instruction because of the complexities sur-

rounding the teaching of children. Carefully planned lessons give the student more confidence when teaching his/her class and they help subsequently in lesson evaluation and self appraisal.

Once the contents have been placed in a suitable sequence the student teacher can plan and organise individual lessons. When planning a lesson, relationship of three components of instruction should be kept in mind. These components are :

- objectives of the lesson,
- the teaching methods, materials, media, aids, learning experiences and their organisation,
- Evaluative procedures.

A lesson may be categorised into the following stages to achieve desired behaviour outcome of the student

<i>Lesson Stage</i>	<i>Desired Behaviour Outcome</i>
I — Introduction	Motivation
II — Presentation	Apprehending Understanding Retention Acquisition
III — Application	Recall Generalisation Performance
IV — Conclusion	Recapitulation Evaluation feed back

Student teachers should prepare and organise their lessons with utmost care at different stages. Every stage has its own significance and importance. Brief discussion of each stage will help in understanding it.

Introduction

This is to arouse the interest of the student in the content to be taught, it is here that the teacher creates a desire in the children to take part in the lesson. It also helps to establish an atmosphere conducive to learning. Set induction devices may include — recall of previous knowledge of the subject, informing the pupils of the lesson objectives, appealing to the basic motives and interests of the pupils, asking provocative questions, doing something unusual, showing the class an object and using it as a basis for a series of questions, narrating incidences related to the content, role-playing etc. Introduction needs to be very effective using one's own ideas and creativity. Student teachers should not stick only to questioning. The success of the entire practice teaching depends upon how effectively the student teacher begins the lessons.

Presentation

This forms the main phase of the entire lesson. The teacher introduces new concepts to be learned. The principal function of the teacher will be to draw the attention of the class to the significant features of the materials, to structure it in such a way as to assist the pupil's understanding and assimilation of it, to deal with any difficulties, and to provide learning guidance to ensure a form of encoding that will enable the learner later to recover what he has learned and display it subsequently as some kind of performance. Sequential content analysis of the unit which will be taught, is a must for every student teacher. There should be logical development of the lesson and also content should be to the comprehension level of the pupils. Wherever required teacher must explain, draw narrate, act it out to make the concept clear. Explanation should be followed by a systematic Black Board (B.B.) summary. B.B. summary needs to be well organised. All the important points should be written on the B.B. Science teachers should develop diagrams on the B.B. Coloured chalks should be used for drawings. All the writing should be in white preferably. Wherever required small experiments should be demonstrated.

Language teachers should give emphasis on pronunciation, grammar and discussion. Model Leading should be very effective. Teacher needs to rehearse the lesson many times prior to actual classroom teaching. Certain simple things like holding the book while reading, knowledge of content, fluency as spoken language must be taken care of. Student teachers need to know in detail about the grammar. For example while teaching *sandhi* (sandhi), teacher should explain the principles clearly and give the correct names.

While teaching language, student teachers should strictly take up only prose or poetry. This helps them to develop the skills required for a language teacher. If a grammar topic is taken, care should be taken as to complete all the aspects. This is not possible in the short period of practice teaching. Language teaching does not mean, one has to deal with only language. There needs to be inter-disciplinarity in what we teach. Teacher needs to have a sound knowledge of Social Studies, Science and to a great extent the current affairs. For instance, while teaching the lesson which covers topics, like wild-life sanctuaries, tourist spots of some states — e.g. Brindavan in Mysore, Botanical gardens in Ooty, Lalbag in Bangalore, Taj Mahal, Sabarmati Ashram etc. teacher needs to have the knowledge of these

places as to what they are famous for. This will make the teaching more interesting.

Student teachers who are teaching Social Studies must make use of the maps very often. Certain topics like study of different regions are very monotonous. The students too find it difficult to comprehend and remember. Invariably one gives in for parroting. This could be avoided and to make the lesson interesting, the topic could be taught using the map. The overall geographical conditions, if explained, then the vegetation, type of living, natural resources, industries will follow automatically. We tend to teach "in the air" without making use of maps and other teaching aids. There could be discovery method also. The class collects information regarding a particular state and exhibits. This will motivate for more student participation.

There should be pupil participation. Student teachers should ask why there is pollution and not what is pollution. Draw the structure of a plant cell and not what are the organs of a cell? Teacher should ask questions wherein pupils have to apply the new knowledge they've learnt. It should not be purely based on recalling the facts. By asking such type of higher order questions, it will evoke the critical thinking and creativity aspects of cognitive mental ability.

Another aspect to be kept in mind is the time-factor. Instructional events not only must lead to the achievement of the objective but they must also fit into the time available. Although the timing of the lessons will become instinctive with experience and practice in the early stages, the student teacher will have to take the time factor seriously and gauge just how much one will need. One way of doing this is to begin by apportioning time to each of the lesson's sections as a notional guide. For instance 35 minute lesson could have a five minute introduction, fifteen-twenty minute for presentation, ten minutes for application and conclusion. Then visualise the setting for the lesson — the room, the children, the equipment needed and how it will be used, movement about the room, organisational factors and so on. Finally, mentally rehearse the lesson against this back ground in such a way that the whole conception is over quickly. In this way one will get the feel of the lessons rhythm and will get into the habit of thinking of the content and method in relation to time available, so that eventually they will become inseparable.

Self appraisal — Peer appraisal — Supervisor's appraisal

Student teacher should analyse his own lesson critically. Peer feedback is not condemnation or criti-

cism. It is the duty of the supervisor to see that there is a cordial relationship among all in the group and the feedback is given objectively. Finally the feedback from the supervisor — there is no need for him/her to write each and every comment on the lesson plan. He/she should maintain a small book wherein all the comments should be written. Supervisors must insist on the lesson observation by the respective subject teachers. They are more experienced and will have very practical observations to make.

Practical teaching does not mean to only give lessons and observe certain number of lessons and run away. The student teachers must act like part and parcel of the school system and take part in all the activities of the school. They should actively take part in awareness, counselling to weak students, observe the teachers who are good at teaching, conduct cocurricular activities, find out the duties as a class teacher.

Conclusion

Practice teaching deals directly with the tasks of teaching profession like, managing the classroom in developing appropriate teaching strategies, in exercising control and discipline and in organising both the, in-school and out of school activities of the children for whom he is responsible. Preparation, planning and organisation of practice teaching should get more weightage and importance in teacher training programme.

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TO OUR CONTRIBUTORS

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Tutor's Comments in Distance Education

Umesh Madhukar Rajderkar*

Distance Education System is a non traditional system of education. It imparts education through innovative and modern techniques. Self Instructional Material, Audio and Video Cassettes, use of Computers, Contact Session are some of the means through which distance education is imparted. Distance education lays emphasis on the needs and convenience of the learners and plans its educational programmes according to it. Distance education is imparted through Print Material which is written in the Self-Instructional Form. There is also use of audio and video cassettes, but it does not mean that face to face contact with teachers is altogether done away with in distance education. Direct interaction with teachers who are called 'Counsellors' is provided in the counselling sessions which are organised on Sundays. Learners can discuss their problems in the contact sessions. In Contact Sessions teaching is not expected, it is expected that there should be a discussion between the learners and the counsellor, after learners have studied a particular part or content at home through Self Instructions Material.

As there is separation of learners from the teacher, the question of guidance, motivation and monitoring of learner's progress and performance arises. In order to solve this problem there is provision of continuous assessment in distance education. Learners have to appear for Class Test and submit Home Assignments. Counsellors check the assignments and give their remarks which further guide, and direct the learner in his study. Counsellor's remarks are very necessary as they motivate and activate learners. A wrong remark, may altogether demotivate learner, resulting in giving up the attempt on his part. Counsellor's comment on assignments have been classified. There is a 'Harmful Comment' like 'this part is not clear to you' this type of comment puts off the distance learners. There is another type and that is 'Hollow Comments' which do not guide or provide any clearcut instructions for improvement to learners, like 'Please go through the content once again'. This kind of comment does not provide any clear direction. There can be 'Misleading Comment'. Some comment mislead the learners and learners fail to know whether their response is correct or wrong. Such comments are just a set of words, like 'Please read the para again'. There can be 'Null Comments' which do not illustrate or explain, refuse or

approve the answer/response. For example, 'What do you mean by this! Where is the illustration?'

There are 'Negative Comments'. Learners require these comments as they get clear direction to their study. Such comments like 'Not to the Point', 'You have not given enough treatment to the topic' give clear direction, point out what is lacking in the learners' responses.

'Positive Comments' approve learner's attempt. They appreciate the learners attempt, his understanding and provide him motivation. They encourage learners for further study. Such comments are like 'Your explanation is acceptable', 'You have given good illustration'.

'Constructive Comments' do not negate what the students have written or do not approve what they have written. Such comments offer constructive suggestions so that the learners performance can be improved. For example 'Instead of giving negative illustrations, you could have given positive illustrations'.

There is another type and that is 'Global Comments', these comments cover the assignment as a whole and comment on the spellings, style, drawbacks, plus points of the assignment. They also provide explanation for the grade that has been awarded to the response.

There can be 'Personal Comments'. These comments are very important. In distance education the learner is separated from the teacher, he has to perform his learning activities in the absence of the teacher. He therefore feels isolated which may pose several problems in his study. It is therefore necessary that through comments we should break this isolation. Such comments can be like 'Your answer is good, You have thoroughly understood the whole content, 'Keep it up'.

Distance tutor should make use of Constructive, Positive, Global and Personal type of comments extensively as they will motivate the learners. Distance learners are adults, they could not take benefit of the conventional educational facility, system and are always doubtful whether they can complete a programme for which they have registered. It is therefore necessary that distance tutors, or counsellors should provide them proper guidance and motivation in their study. There should be wide scope to supplemental communication between the learners and the counsellor which will break the barriers that are created on psychological grounds on the part of students. This will help learners get success in the programme they have taken up through distance mode of education.

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Excellence in Science and Education

Dr. R.S. Paroda, Secretary, Department of Agricultural Research & Education and Director General, Indian Council of Agricultural Research, delivered the Convocation Address at the sixteenth annual convocation of the Gulbarga University. He said "Decentralization, flexibility, incentives and rewards access to information and knowledge, infrastructure development, removal of gender bias, opportunities for career advancement etc, are the critical paradigms that are central for achieving excellence in science and education. All these would require bold initiatives and commitment of all those who matter in our present ladder of hierarchy. Renewal of the system would require firm commitment of all from top to the bottom and change in our mindset to do business differently where efficiency and excellence are the sole criteria for incentives and rewards." Excerpts

As we are celebrating the 50th year of our independence, we can look back with great pride and satisfaction at the progress made by the country in the field of education. The impressive attainments in the sphere of space technology, missile development, nuclear energy, and self sufficiency in food production, owe greatly to the development of skilled human resources by our universities. Both the qualitative and quantitative growth of education have significantly contributed towards phenomenal national growth and development. On this account, we can derive great satisfaction and national pride. Thanks to the vision of planners and policy makers who gave needed support to the education sector in this country. Today, education system in India is rated very high globally and our graduates are doing exceedingly well in outside universities.

Education has also played a key role in the development of democratic principles and institutions in India. Besides creating a general public awareness, it has also improved the quality and ability of leadership at various levels, an essential ingredient for building a modern technological vibrant society. While we have succeeded to a

large extent, yet there are concerns about which the Convocation is a right occasion to deliberate.

The vast spread of education in India has resulted in education for all in a true sense. Yet, presently our colleges and universities are facing the credibility crises, especially the way the education is managed including the work culture provided. Also there are enhanced expectations of the Society relating to value from the investment in education for their wards. Also with the increasing resource crunch, a new paradigm of "earning your own money" is becoming a reality. The privatization in higher technical education is emerging fast. From a protected system, we are moving to a competitive system of education. Also the globalization and breaking of communication barriers is leading to universalization of higher education. In this transition, public institutions such as universities are facing a major challenge of revamping their educational system and devising procedures to meet the growing expectations of our society.

For continued success, we need to develop sound educational policies regarding institutional autonomy, improved quality of teach-

ers, improved educational facilities, in-service training, decentralization of educational administration etc. The rise and fall of a nation depends on the success or failure of its education system. We need to implement innovative steps to modernise our educational activities. The pursuit of quality education is a pre-requisite for advancing the frontiers of science and technology, strengthening of international competitiveness, and for broadening the knowledge as well as skills necessary for national character building. For all this, massive investment in education and human resource development is called for. Proposed target of spending six per cent of national GDP on HRD would enable us to address these concerns effectively.

The world today is technology driven. Discoveries in science in one country have far reaching effect on the life style of people in other countries. We are fortunate to have one of the largest human resource in science and technology including agriculture in the world, yet, when it comes to developing new technologies specially in the frontier areas of science, such as biotechnology, we are far behind. Development of DOLLY by Dr. Ian Wilmut at Roslin Institute in Scotland from somatic cell from udder of sheep is a remarkable feat, in our understanding of molecular biology. Leaving aside ethical question, this has put on the agenda of most developed countries that with much less investment major discoveries could be made which are intellectually satisfying and commercially exploitable, provided research efforts are sharply focused and well supported. We have to ask a question as to why is it that despite our vast human resources and educational infrastructure we have not been in the forefront of developing the best technologies? Our own products when exposed to outside

environment, are doing exceedingly well. Is it due to lack of existing infrastructure in our institutions or is it due to lack of proper environment for manifestation of our scientific talent into productive output? Our future generation will not forgive us if we are not able to address these concerns immediately. It is true that modern science requires considerable investment and our government is committed to provide necessary financial support for excellence in science and education. Additional resources are also being generated by the institutions themselves. But my concern is that this alone is not going to lead to tangible benefits unless we are able to take corrective measures to improve our work culture and environment. This would call for effective administrative and financial autonomy with inbuilt accountability for improving the performance in our research and education system. We all need to do a serious exercise of finding out constraints that limit the productivity of our scientists. Of necessity, because of globalization and coming in of Intellectual Property Rights, we have to be in the forefront of developing new technologies. Hence, the urgency is to attract and retain the best talent in our system. This would also require a relook at our recruitment and personnel policies and also the kind of work environment that we provide to our young, talented scientists. Time has come for us to critically review and take corrective measures for improving the efficiency of our system.

Decentralization, flexibility, incentives and rewards, access to information and knowledge, infrastructure development, removal of gender bias, opportunities for career advancement etc, are the critical paradigms that are central for achieving excellence in science and education. All these would require

bold initiatives and commitment of all those who matter in our present ladder of hierarchy. Renewal of the system would require firm commitment of all from top to the bottom and change in our mindset to do business differently where efficiency and excellence are the sole criteria for incentives and rewards. Let us commit ourselves to move a step forward in this direction without further loss of time. I am sure, each one of us collectively could accomplish this task successfully.

I am of the view that the support provided to education sector at present, is much better than the support many developing countries are able to provide. There are nations that are not even having a single university, whereas in many others, these could be counted on fingers. In India, today we have a vast network of 196 Universities, beside 33 agricultural Universities. However, a stage has come when we must prepare a long term perspective plan for future growth of these institutions and check mushrooming of such institutions based on considerations other than merit. All this would require socio-political commitment at the national level. Sooner we do this, better it would be in the national interest. This would also enable us to address the concern for "equity", especially in the context of HRD needs of relatively less developed regions.

It is well recognised that the funds alone cannot help improve

the quality of our education. It is said "*Bricks alone don't make institutions*". I fully endorse this. The motivation of teachers and students is of paramount importance. For this, both learning and questioning should go hand in hand.

Guru Dev, Rabindranath Tagore had said in *Gitanjali* :

"A candle which is not lit cannot light others; A teacher who is also not learning cannot teach others".

If this message is imbibed by our faculty in letter and spirit, we can achieve required revolution in our education. This calls for renewed thrust and commitment by our teachers in imparting required education to the young talents so as to enable them to meet future challenges successfully and transform this society for a better tomorrow. Let us ask whether we have such a determination as first and foremost before us. If not then, who else to be blamed. We must address the issue of authority with accountability together and not the former in isolation. Debate on this issue must start now to find proper solutions. Teaching community has this onerous task to address on priority and let us accept this challenge openly. We are convinced that the qualitative improvement in higher education is not possible unless the present system is overhauled to rise above the *status quo* and have the intellectual independence, creativity and quest for knowledge as our cherished goals.

PANJAB UNIVERSITY (CHANDIGARH)

ADVERTISEMENT NO. 1/98/GP

Applications are invited for a temporary (likely to continue) post of Programme Co-ordinator in the pay-scale of Rs 3700-5000 (Un-revised) + allowances in the National Service Scheme Organisation at this University, so as to reach by registered Post to the Finance and Development Officer, Panjab University, Chandigarh by 25-03-1998.

Application form alongwith 'Detailed Instructions' can be had from the Cashier, Panjab University, Chandigarh on payment of Rs 75/- for General Category and Rs. 30/- for SC/ST candidates or from Finance and Development Officer by sending a Bank Draft of same amount in favour of the Registrar, Panjab University, Chandigarh accompanied by a self-addressed stamped (worth Rs. 8/-) envelope of 30 cm x 12 cm.

CAMPUS NEWS

University-Industry Interface 2001

"There are many success stories of the industry-institute interface in the country. An inventory of all such cases where the interaction had resulted in mutual benefits to both will soon be compiled," said Mr. Ashok Parthasarthy, Secretary of Small Scale Industries and Food Processing, Govt. of India. He was addressing the valedictory function of the "University-industry interface 2001" organised by Panjab University in Chandigarh recently.

India had come up with the first biodegradable polythene bag in a research institute of Kerala. The application for patent right would soon be filed in the USA and the UK. A plant with a 10000-tonne capacity would be set up. Another example was that of an IIT teacher who had done pioneering work in communication. This teacher had tied up with the industry and ensured huge profits, he said.

Addressing the seminar Dr. R C Sobti said industry should sponsor students for curricula of their choices by paying monetary compensation. Dr. Subash Chander stressed that training should match professional needs.

Mr V.P. Kamboj said researchers should not waste energy on multiple problems but concentrate on various aspects of one problem at a time. A targeted approach was always better result-oriented. Dr S S Parmar highlighted the falling standards in university research.

Mr. S.K. Bijlani said industry was no longer driven by market alone. He advocated the need to provide incentives for those who

showed results. Dr. S.K. Sharma dwelt upon various facilities available at Panjab University.

Prof. Satya Prakash Singh of University Business School said that the quality of education was in jeopardy. There was a big rush for an MBA degree these days. Pointing out discrepancies in the existing entrance examination system, he stressed the need for a single testing agency in the country.

Dr. I.B.S. Passi, Dean, University Instructions, presided. Others who addressed the gathering included Prof. K.N. Pathak, Dr. M.J. Zarabi and Dr. R. Parkash.

Towards a Healthy Heart

"If you understand real pain of society, you will forget all other pains," said Prof. Alauddin Ahmed, Vice-Chancellor of Jamia Hamdard University. He was delivering the chairman's address during a quiz competition, entitled "Journey towards a Healthy Heart" organised by the Faculty of Nursing, Jamia Hamdard University, in New Delhi recently. He said that "the nursing profession is one of the noblest of professions." "The nurse's job is to understand the pain of others and look after them," he added.

Dr. K K. Aggarwal, Vice-Chairman of the Heart Care Foundation of India, who was the chief guest, said that "admiring Mother Teresa is not enough. Each nurse should try to become like her, who is a classical example of doing one's duty with devotion and discipline."

"Each nurse should be attached to her actions but detached

to the results. The detached attachment is the message both from the Bible as well as the Gita," Dr. Aggarwal said.

He said that attachment, desire, anger, greed and ego were the obstacles to life and gateways for disorders like heart attack, paralysis, acidity and cancer. The only way to remove these obstacles was by inculcating a positive behaviour in life like that of giving and sharing with each other.

Mrs. Narender Nagpal, Principal of Jamia Hamdard College of Nursing, said that the nurse's profession could do a lot for healing the sick.

Miss Julie, Ms. Rachika and Ms. Kaur from the B.Sc. (Nursing) IIIrd Year, who organised the main quiz, said that such type of quiz helped them in the nursing profession.

The quiz was sponsored by MRI Scan Centre, and co-sponsored by Cipla Limited and Ranbaxy Laboratories.

SIDBI to Promote Managerial Training

The Small Industries Development Bank of India (SIDBI) is reported to have launched a management programme in collaboration with leading management and engineering institutes to train professionals for the small scale sector. The objective of the small industries managements programme (SIMAP) is to develop a cadre of industrial managers specifically trained to assist the SSI entrepreneurs in their multiple responsibilities.

According to SIDBI Managing Director Dr. Sailendra Narain, the

bank has signed memoranda of understanding (MoU) with Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Xavier Labour Relations Institute (XLRI), Jamshedpur, Narsee Monjee Institute of Management Studies (NMIMS), Mumbai and Indian Institute of Foreign Trade (IIFT), New Delhi for running management programmes.

The programme also seeks to open new avenues of productive employment for young graduates who are otherwise not professionally qualified. "The programmes would serve the twin objective of offering a second line of trained managers of affordable salary level to all entrepreneurs and professional qualification to those seeking employment opportunities," Dr. Narain said.

SIDBI has also planned to provide corpus support to regional reputed institutions for strengthening the programmes and giving it a long term distinctive image.

"The modus operandi of the corpus fund support is to first place a lumpsum amount with selected institutions for an additional period of five years after signing a MoU," Dr. Narain said.

The bank has also set up a task force for providing a platform for experience sharing and further guidance to the various institutions involved in conducting the programme.

More than 50 per cent of the management students trained through earlier SIMAPS had been well placed through campus recruitments, Dr. Narain said. SIDBI was negotiating with other reputed management and engineering institutes to conduct such programmes in the future. The programme, started primarily for unemployed non-technical gradu-

ates, now covered industry sponsored participants, Dr. Narain said.

Human Behaviour in the 21st Century

The Institute of Behaviour and Allied Sciences, in collaboration with the Aastha Foundation for Development and Welfare organised a workshop on "Human Behaviour in the 21st Century" in New Delhi recently.

Prof. S.D. Sharma, President-Elect of the World Association of Social Psychiatry, inaugurated the workshop and discussed various issues such as population explosion, technological advancement and the inability of the poor to have access to resources as the major reason for growing behavioural disorders.

Stating there is a lot to be done in this field, Prof. Sharma said, "It is estimated that by the turn of this century, there will be about 570 million people suffering from behavioural disorders who would need medical help."

Prof. J.S. Bapna, Director of the Institute of Human Behaviour and Allied Sciences, said technological development and increased necessities of people led to stress and strain in life. Quoting a study conducted by Harvard University and the World Health Organisation (WHO), he said in 1990, five of the 10 commonest reasons for disease burden as calculated by years lived with disability consisted of unipolar major depression, alcohol abuse, bipolar depression, schizophrenia and obsessive compulsive disorders.

"Such behavioural disorders are likely to increase dramatically in time to come," Prof. Bapna stated. "The projection for 2020 showed that disease burden due to communicable, maternal and perinatal conditions and nutri-

tional disorders is likely to fall to one-fifth i.e. from 49 to 17.6 per cent," he added.

"While behavioural disorders will increase from 47.4 to 68.7 per cent, the burden from injuries is expected to rise marginally from 10.7 to 13.7 per cent," Prof. Bapna said.

He stressed the urgent need for taking preventive measures for behavioural disorders which were growing at an alarming rate. He said the National Health Programmes should include the disorders causing disability rather than based on mortality statistics.

Dr. P.C. Joshi, Associate Professor of Anthropology and Organising Secretary, briefed about the programme of the workshop which consisted of discussions on behavioural science, perspective on human behaviour, urbanisation and stress and clinical perspectives by eminent persons in subjects such as anthropology, sociology, psychology, medical science and education.

Dr. Dalip Singh, OSD to Deputy Speaker of Lok Sabha, highlighted that "mental health is the biggest challenge India will be facing in the next century." He stressed the need to activate mental health programmes.

Prof. Anita Minocha from Sociology Department of Delhi University, highlighted the social, demographic, political and economic factors which were the root causes of human behaviour problems.

Prof. John Van Wilegan of the University of Kentucky, U.S. pointed out the shift of rectangular demography in India. He also highlighted the phenomenon of politicisation of age and integration conflict. He talked about the transition of view of the older people and decentralisation of power distribution.

Prof. B.S. Nagi of the Council for Social Development, stressed the need for educating the masses before any effective action planning.

Dr. Prem Singh discussed the impact of psycho-social changes on literature from Prem Chand to Surender Verma. Dr. Vikram Singh of Indian Spinal Injury Centre and Dr. Sanjay Wadhwa of the All-India Institute of Medical Sciences (AIIMS) advocated the cause of the disabled and suggested necessary policy changes in this direction.

Dr. W. Selvamurthy, Director of the Defence Institute of Physiology and Allied Sciences, highlighted the role of yoga and Indian System of medicine in controlling stress. Dr. N.K. Chadha of Psychology Department of Delhi University highlighted the basic causes of stress, individual and organisational, the root of most of the behavioural and clinical disorders.

Prof. Surender Nath of Delhi University suggested the networking of experts of various disciplines for action planning. Dr. R.K. Chadha and Dr. M.C. Singh discussed the magnitude of mental health in the next century and gave projections on the basis of current trends in India.

Aquaculture Centre for DU

Eminent scientists have offered to help Delhi University set up a centre for research and development activities in the field of aquaculture. The offer was made at a national symposium on sustainable aquaculture which was organised by the department of Botany and Society of Ocean Scientists and Technologists (SOST) in New Delhi recently to commemorate the

platinum jubilee year of the Delhi University.

Speaking on the occasion Dr. R.S. Paroda, Director General of the Indian Council of Agriculture Research, stressed the need to work out all aspects of food safety associated with the production system.

President of SOST, Dr. S.Z. Qasim said since aquaculture had only recent origins in India, serious attention should be given so that there was no adverse effect on the adjoining areas used for agriculture and other activities.

Over 200 scientists from different parts of the country, and various embassies, attended the symposium and exchanged views on various aspects of aquaculture. It was felt that aquaculture research and development should be given the highest priority since it was a major source of food and had great potential for employment generation.

Change in Degree Nomenclature

The Majlis-i-Talimi (Academic Council) of the Jamia Millia Islamia University in its meeting held on 5.2.1997 has resolved to change the name of undergraduate degree in Faculty of Engineering and Technology, from "B.Sc. Engineering" to "B.Tech." in all courses. This change is effective from the academic session 1996-97. It has already been notified by the Registrar of this University vide his Circular No. AC-1(7) dated March 21, 1997. Therefore, the marksheets of all those students who are affected due to this change will be treated as of B.Tech instead of B.Sc. Engineering for all practical purposes.

The above change was felt necessary in view of the students

facing problems in getting admission or employment.

Prof. Subash Chaturvedi Honoured

Prof. Subash Chaturvedi of the School of Physics, University of Hyderabad, has been elected as fellow of the Indian Academy of Sciences, Bangalore, in recognition of his outstanding research and contributions in the area of Theoretical Physics.

Prof. Chaturvedi has authored over 90 research papers in reputed national and international journals and a book. He is also a recipient of the Commonwealth Academic Staff Fellowship under which he visited Oxford University and carried out collaborative research work.

The Indian Academy of Sciences, which was founded by Nobel laureate, Prof. C.V. Raman, has been consistently devoted to the promotion of science and dissemination of scientific knowledge.

NAMS New President

Prof. K. Mathangi Ramakrishnan has been elected new President of National Academy of Medical Sciences (NAMS) (India), the apex body of Medical Sciences in the country.

Prof. Ramakrishnan is an acclaimed plastic surgeon, and has been the recipient of Dr. B.C. Roy National Award, Hari Om Ashram Alembic Award and Verma Award. She was formerly Chairperson and Professor of Burns, Plastic and Reconstructive Surgery at Kilpauk Medical College, Chennai.

She is presently Emeritus Professor of Plastic Surgery at Tamil Nadu's Dr. MGR Medical University and is also the Emeritus Scientist, CSIR.

News from Agricultural Universities

Sir Chhotu Ram Memorial Lecture

Dr. Har Swarup Singh, former Member of Planning Commission, observed that the cause of the farmers in India had not yet been taken up effectively and it remained a neglected majority. He said that small and unviable holdings, low productivity due to inadequate availability and poor quality of most farm inputs, shortage of credit, lack of infrastructural facilities, unsatisfactory marketing of farm output and bureaucratic hurdles continued to plague India's agricultural economy. Dr. Singh was delivering Sir Chhotu Ram Memorial Lecture at the CCS Haryana Agricultural University in Hisar recently. He said that the quality of life in rural areas had gone down despite improvement in agricultural/rural incomes as the gap between rural and urban population had widened in terms of per capita earnings and consumption.

Elaborating the reasons, he described unabated increase in the number of unviable holdings, land ceiling, declining employment rate in agriculture and poor credit and infrastructural facilities as the biggest constraints.

He said that annual rate of growth of foodgrains output in India, which had been 1.7 per cent during 1990-91 to 1996-97 against the current population growth rate of 2.14 per cent, was a matter of grave concern. Highlighting the agricultural scenario in the country, Dr. Singh said in spite of overall rise in production of wheat and rice, we still lagged behind in their productivity. "In India, the average per hectare yield of wheat is 2420 Kg while in China it is 3318

Kg. The corresponding yield of rice in India and China are 2817 Kg and 5859 Kg respectively. The yields of coarse cereals are also low", he added.

Dr. Singh said that the nation would not achieve the target of 7 per cent year growth rate, as slated in the new economic policy by focussing on industry alone. The agricultural growth rate would have to be raised around 4 per cent from some 2 per cent achieved in the past. This, he said, was not just desirable for maintaining food self sufficiency but was essential for creating more livelihood opportunities in the farm and non-farm sectors.

He said the new economic policy should allocate more resources to develop the infrastructure in terms of irrigation and availability of rural credit and other facilities in these areas since agriculture had high employment elasticity. Also, it would be desirable to invest in health, education and improved labour skills so that the work force was able to take advantage of the latest technologies and methods of production.

Regarding subsidies to the agriculture sector, Dr. Singh emphatically said that this sector needed subsidies and general support as the farmers had to work against heavy odds including vagaries of weather. He said the need on the part of Government to give special support to agriculture was indeed recognised all over the world.

He observed that lack of organisation on the part of farmers or even bias against the farmers in many situations on the part of gov-

ernment were major obstacles in the farmers' way to present their case and secure help. He said the farmers organisations were weak and usually engaged in taking up select causes to obtain some urgent one-point relief rather than following a broad-based, the systematic and sustained plan for farmers' welfare. However, on the contrary, the industry representatives were in constant touch with the political leaders and bureaucrats and mounted successful lobbying efforts in the interest of industry and business.

Recalling the contributions made by Sir Chhotu Ram, Dr. Singh said some of his agrarian reforms like consolidation of holdings, marketing of agricultural product act, standardization of weights and measures act, restitution of mortgaged land act and debtors protection acts were great, everlasting achievements.

On this occasion, the Vice-Chancellor, Prof. J B. Chowdhury conferred Sir Chhotu Ram National Award for the year 1996-97 on Dr. Kartar Singh, Director, Institute of Rural Management, Anand (Gujarat) for his outstanding contribution in agriculture and rural development. The award carried a cash prize of Rs. 25000 and a citation

In his address, Prof. Chowdhury described Sir Chhotu Ram as *Masiha* of the down trodden section of the society for whose upliftment he devoted his entire life. He said following his ideals and policies, this university was all up to bring prosperity in the countryside.

Regretting the social evils prevailing in the countryside, which, according to him, were creating hurdles in the development of rural society, he called upon all sections of the society to come to the

rescue of their rural brethren. Prof. Chowdhury also urged the scientists to contribute their bit in the upliftment of the ruralites, for their

smallest contribution in this regard would be a real tribute to the leader of rural masses, Sir Chhotu Ram.

News from UGC

Countrywide Classroom Programme

Between 15th and 21st March, 1998 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 7.15 to 8.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 7.00 a.m. four days a week i.e. on Tuesdays, Thursdays, Saturdays and Sundays. On DD2 University Video Lecture Courses will be shown at midnight between 0000-0030 hrs. and in the morning between 10-10.30 a.m. on Monday through Friday.

Hindi Programmes are being telecast on Mondays, Wednesdays & Fridays from 6.00 to 6.30 a.m.

15.3.98

"Sculpturing"
"Puppetry Video Workshop-Freedom"
"A Touch of Adventure-1 : Rock Climbing"

UVLC

No Telecast

16.3.98

"Physics of Music-II"
"The String Instrument"
"Mystery of Colours"
"Exploring Eden : Madhuca"
"Race to Save the Planet-6 More or Less"

UVLC

"Origin and Historical Growth of Saktism & Other Minor Sects"

"Estranuclear Organisation of Cells"

17.3.98

"Browsing the Frontiers of Information Technology-2"

"Fuse & Its Use"

"Manufacturing Medicines-2"

"An Introduction to Archaeology-Foot Prints from the Past"

"Exploring Eden : The Delta Endangered"

"Race to Save the Planet 7 : Save the Earth-Feed the World"

UVLC

"The State"

"Riemann Integration-II"

18.3.98

"Arsenic Contamination-3 : Living with Arsenic"

"Exploring Eden : Flora of Sunderbans"

"Race to Save the Planet-8 : Waste not, Want not"

UVLC

"Effect of Family Life Cycle on Resource Management"

"Ocean Deposits & Coral Reef-III"

19.3.98

"Silver Magic-1"

"Granite Mining"

"Joy of Learning"

"Question Time-58"

"Making Life Easier : The Paraplegic Home"

"Exploring Eden : Lower Fauna of Sunderbans"

"Race to Save the Planet-9 : It Needs Political Decision"

UVLC

"Indian Federation : Nature"

"Concept & Measurement of National Income-II"

20.3.98

"Mallakhamb"

"Exploring Eden : Succession of Mangrove"

"Race to Save the Planet-10 : Now or Never"

UVLC

"Biological Motivation"

"Methods of Data Collection"

21.3.98

"Statistics Investigating Correlation"

"Technology & Information Society"

"Plant Life Under Extreme Environments-1"

UVLC

No Telecast

Hindi Telecast

प्रातः 6.00 से 6.30 बजे तक

16.3.98

"हिंदू टैंपल शिखर-1"

"औद्योगिक क्षेत्र में मानवीय संबंध : हौसला"

18.3.98

"लैटर ऑफ क्रेडिट"

"भारतीय कला में पुरुष-2"

20.3.98

"नीम : एक अमूल्य वृक्ष"

News from AICTE

Career Awards for Young Teachers

The scheme is to identify young talented teachers who have established competence in their areas of specialization. The

scheme helps in promoting their professional growth by enabling them during a crucial period of their career to devote a significant part of their time in research and study with reduced teaching responsibilities.

The Awards are offered to teachers working in the institutions/Universities/Colleges of Technical Education, specially Engineering & Technology, Architecture, Town Planning, Management, Pharmacy, Applied Arts & Crafts and such other subjects under the definition of Technical Education (TE) as provided in the AICTE Act, 1987. An Awardee can also work at an institution other than his/her parent institution.

Teachers having a post-graduate degree as minimum, with consistently good academic career and a demonstrated aptitude with commitment to teaching work, shall be eligible for the award. The age limit for the award is 35 years as on 1st of July of the year of the award. Relaxation in age upto 5 years for women, handicapped and weaker sections of the society may be made by AICTE consistent with national policies.

The award is for a period of three years and this period should primarily be devoted to research work on the project only with a teaching load not exceeding 6 hrs. per week and maximum of 10 hrs either in the parent institution or host institution. The Council shall pay to the awardee his/her full salary and allowances and he/she shall be treated as on duty. In addition, a research grant upto Rs. 3 00 lakhs (Rupees three lakhs only) will be given for purchase of equipment, including personal computer/informatics services, books/journals, field work, travel in India, etc.

Only 20 career awards are available per year.

Emeritus Fellowship

The scheme of Emeritus Fellowship utilizes the services of highly qualified and experienced superannuated professors at institutions/colleges/universities for making contributions of academic scholarship to enrich teaching and research in Technical Education, i.e., Engineering & Technology, Architecture, Town Planning, Management, Pharmacy, Applied Arts and Crafts and other areas as per the AICTE Act. There may be one hundred positions of Emeritus Fellowship at a time

The scope of the Scheme has been broadened to achieve excellence in all facets of the technical education and not only research

The Fellowship is awarded for proposing, executing, guiding and monitoring of sponsored and consultancy projects in technical education, carrying out research & development in professional/technical education; development of emerging sectors of knowledge/innovative schools of thought; generation of indigenous learning resource materials, manuals, etc.

An Emeritus Fellow may adopt a developing institution located in a nearby area of the host institution, where he/she will devote a part of his/her time for giving impetus to consultancy, research, redesigning of courses, industry-institute-interaction, formulation of research projects and also participating in teaching of those subjects for which expertise is not available in the adopted institution.

The person should be an acknowledged leader (expert) in

the field of his/her specialization.

The Fellowship is tenable for a period of two years only or upto the age of 70 years, whichever is earlier. AICTE may, however, extend the period of the Fellowship by one year.

The Fellowship consists of (i) honorarium of Rs. 7,500 p.m. to the Emeritus Fellow (EF) for the duration of his/her tenure, (ii) a contingent of Rs. 30,000/- per annum. An additional grant of Rs. 50,000 will be given to an Emeritus Fellow for adopting a developing institution under the Scheme. The honorarium indicated will be over and above any superannuation benefits he/she may be receiving.

Proposals be made in the prescribed proforma through the Executive Head of the Institution where the candidate wishes to work as Emeritus Fellow, duly certified that the core facilities are available and will be provided to the candidate to work on the proposed scheme. Applications will be considered twice a year. Emeritus Fellowship commences from the date when the Emeritus Fellow joins the host Institution and starts drawing honorarium.

The contingent grant may be utilized for secretarial assistance, tours undertaken as an essential part of proposed work, purchase of books and journals not available in the institution, postage, special consumables or other materials essentially required for the work, and availing the services of technician/attendant.

An Emeritus Fellow is allowed by AICTE to take up sponsored research and consultancy work within the framework of the rules and regulations of the host Institution.

BOOK REVIEW

Public Sector Scenario on a Wider Canvas

M.L. Bhatia*

S. Ramnarayan & I.M. Pandey. Strategic Management of Public Enterprises in Developing Countries. New Delhi, Vikas Publishing House, 1997. Pp. x + 326. Price Rs. 495/-.

Public enterprises (or parastatals as they are called) were a logical development in many developing countries where private enterprise system was not considered adequate enough to deal with the scale of tasks envisaged. Experience has shown that the alternative paradigm of public sector/enterprises is not a simple one and is fraught with numerous managerial problems and formidable political and public policy issues.

The book under review is an outcome of the joint (three series) programme organised in Cyprus, India and Malaysia by IIMA and Management Development Programme of the Commonwealth Secretariat, London for top managers of public enterprises in the Commonwealth countries during 1989-92. The book has three sections. In Section I some academics analyse the key issues of the public enterprises (PEs) in the context of emerging environment. Section II documents the experiences of some Chief Executive Officers (CEOs) on strategic choices, organisational culture and interface with the government. Section III presents case studies again by academics in relation to some public

enterprises mainly in the countries of Asia and Africa.

Section I has seven chapters dealing with organisational and management issues of public enterprises. Chapter 1 provides an overview of the organisational change in PEs and outlines the processes that need to be strengthened. The chapter also presents the findings of an empirical study of 22 PEs in India as to how they coped with change. Six areas of strength and eleven areas of concern, as expressed by the respondents, are mentioned. In the light of these findings, the author concludes that three types of processes need to be strengthened: processes that create a shared sense of purpose; processes that create a supportive environment for change; and processes that influence people's perceptions of the situation, elevate their aspirations, motivations and their sense of focus.

Chapter 2 summarises the strategic experiences of CEOs of some successful PEs of Commonwealth countries. The success of these PEs is attributed, among others, to the CEOs ability to manage government-enterprise interface effectively, their strategic orientation, their ability to manage human resources effectively, promote the enterprise culture and provide leadership which also includes the

ability to negotiate autonomy for their enterprises. Through performance contracting and functional strategies, the CEOs of such enterprises attempt to resolve the cultural gap that often exists between government and the PEs. In all this, the influential personality of the CEO matters a lot. Undeniably, this is a fact amply borne out by Indian experience. It is well known that the fortunes of some public enterprises in India have fluctuated depending upon who is in the chair of CEO. Some of the management tools and mechanisms employed by the successful CEOs include: periodic performance criteria based reviews, training and development, communication and personal contact, subcontracting and ancillarisation, and strategic initiatives like diversification and divestment.

Chapter 3 presents a macro-economic perspective of global trends and issues in PE management. The global trends identified are: declining size of the public sector during 1970s, and concern for enhancing public sector efficiency. The strategies for size reduction briefly discussed are: closure and liquidation, privatisation, competition, and shrinkage through neglect. One really wonders if the last two are 'strategies' in the real sense of the term. As far enhancing public sector efficiency is concerned, the approaches advocated are twofold: reforming the policy framework and reforming the relevant management systems, including MOUs.

Chapter 4 focuses on privatisation, performance contracting and performance evaluation of public sector enterprises in the Indian context. The rationale of and

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rhetoric and reality associated with privatisation are examined. There is no doubt that the ultimate goal of PEs is societal benefit, and whichever method helps in achieving this goal should be adopted. The statement that the two approaches of "privatisation" and "performance contracting" are complementary is rather obscure. If a public enterprise is privatised in full i.e. majority stake is vested in private owners, performance contracting through MOU becomes redundant. The fact is that these are alternative approaches, applicable in relevant situations. Though privatisation is generally favoured, it may not be a panacea in all cases. In fact a well conceived situation-oriented strategy should be formulated based on appropriate framework. MOUs seek to privatise the style of management; they attempt to replace control by procedures with control by results. To what extent the goal is achieved in actual practice is another matter. For MOUs to succeed certain pre-requisites must be made.

Chapter 5 presents a comparative study of performance contracts in three countries, viz. India, Pakistan and Senegal. Some perennial questions like dichotomy between autonomy and accountability, performance-oriented control, adaptation of French model based performance contract by Senegal, Pakistan's so called "Signalling System" (a term without seemingly much substance), and India's MOU system are examined and assessed. The question of balance between autonomy and accountability is more a question of managing PE-government interface, as a section of experts believes. The question how the degree of autonomy is related with performance improvement has not been conclusively established. The success of performance contract-

ing depends on the extent of rationalisation of the existing control system and the extent to which government has fulfilled its obligations.

Chapter 6 deals with regeneration of "strategic organisations". The author's definitions of "strategic organisations" and the three forms of "strategic organisations" (SOs), which he identified, appear to be avoidable jargonisation which can be confusing to the reader. The author cites examples of PEs which have been regenerated. He lists an array of factors which contributed to the turnaround which range all the way from top management's commitment to empowering of subordinates to modernisation of plants to retrenchment. The author emphasises the need of applying proper diagnostics before thinking the turnaround "fit". The author also presents the findings of a study on turnaround creativity in PEs in relation to people management, operations, management systems and structures, and strategic management. Toward the end the author presents some exciting concluding comments; the first and foremost being "even very sick organisations can be regenerated with the right kind of management".

Chapter 7 focuses on how managers deal with strategic complexities. Globalisation of business and consequent increased competition have made the business much more complex and dynamic. New types of problems are being faced by managers. The authors of this paper suggest greater use of computer simulation/scenarios (called MANUTEX) for mitigating the problems created by complexity and uncertainty. Five stages (goal elaboration, knowledge acquisition, prognosis, planning and decision making, control and adaptation of strategies) of the prob-

lem solving process are discussed. This paper is somewhat technical and is of general application. It has nothing specific in it as far as PEs are concerned. Its inclusion in this book is rather obtrusive.

Section II contains 4 papers incorporating first person accounts of CEOs on strategic choices, organisation culture and interface with government. Chapter 8 on IPCL talks about the new directions that were set in motion by the company. Dividing the company's life in three phases, the CEO explains the strategic planning and implementation process. The two main shortcomings of MOUs pointed out by the author are: lack of seriousness on the part of the government in fulfilling its obligations, and the straight jacket approach (i.e., overemphasising the quantitative factors in evaluation) followed by it. The author attributes IPCL's success to the development of inhouse entrepreneurial abilities and team building, emphasis on professionalism and innovation, and understanding of the market needs. Toward the end the CEO expresses his concern about the future of small units nurtured by IPCL due to increased competition. The paper is followed by a question hour (narrative) session.

In Chapter 9 the contributor sums up his experiences of managing CMC. He attributes the achievements of CMC to target setting, encouragement to creativity and innovation, diversification in related areas, adherence to commitment and excellence, and flexibility in the organisation.

In Chapter 10, the contributor recalls his experience (now the world famous experiment) at Anand (Amul "The Taste of India") regarding public ownership and development. The factors attributed to the Anand success

story, as mentioned, are : absence of bureaucratic interference, active involvement of farmers, scale economies, and assured market. The hidden admonition by the author (the well known Dr. Kurien) to the government is that it should provide effective administration and not get embroiled with the running of enterprises.

In Chapter 11, the contributor reflects on the life giving forces in the management process. The author believes that the autonomy-accountability is a relationship that develops as the parties decide and modify plans *together*. The author feels that factors like increasing scale of production, high cost of technology and research, and globalisation would necessitate the perpetuation of public sector. A country's success, according to him, in a large measure depends upon its ability to exploit opportunities that are unfolding in the areas of Finance, R&D, and international linkages. This chapter again is followed by a brief question-answer session.

Section III presents 7 case studies of some organisations in developing countries which have found themselves caught in the cross-currents of dramatic and discontinuous changes which have necessitated the changing of the rules of the game. Without such changes new ideas and approaches may end up as mere flashes in the pan. Environmental shifts need to be responded with appropriate *change agenda*, and implementation of changed agenda, requires an appropriate learning agenda.

The first case study relates to Zimbabwe, second to Kenya, third to Malta, fourth to Sri Lanka, fifth and sixth to Malaysia, and seventh to India. Zimbabwe's case study shows how the independence of the country brought about trans-

formation in the nature of accountability and tasks of Agricultural Finance Corporation to its larger environment. The strategies adopted included expansion, decentralised decision making, computerisation and MIS, group lending, partnership and linkages with other agencies and internal networking. The last two are labelled as "learning agenda". In more or less similar vein the Kenyan case study of Agricultural Development Corporation describes how it accomplished its changed task in various time phases in a country infested with poverty with telling constraints.

The case study on Drydocks Corporation of Malta describes how turnaround of the crisis-ridden organisation was brought about. The case provides both macro and micro contexts; and draws a broad contour of self management practices introduced by the CEO who himself was a trade unionist. The interesting denouement of the case is that even after grappling for a decade with the complex problems created by workers' participation in management, the corporation could not make any worthwhile headway.

Sri Lanka's case study on National Paper Corporation (NPC) narrates how the corporation from the humble beginning emerged as a market leader with over 80% share. The problems it faced in the process on various fronts are mentioned and how it coped with the challenges by adopting various measures, including "peoplisation".

The two Malaysian cases (A and B) relate to Carpets International. The increased competition faced by the corporation from local manufacturers and liberal imports resulted in severe pressures with respect to price, quality and product range. By the time the

Corporation came to terms with the new environment it had already slipped and suffered losses. Capitalising on its core skills, the Corporation geared itself for the untapped customised (contract), product market. The *change agenda* included financial restructuring, building corporate image, motivating organisational members, and lobbying with the government for restrictions on imports. The *learning agenda* included appropriate structures and processes, improving marketing organisation, work methods and operational control.

The case study on National Machinery Corporation of India is the last case and shows how the CEO had to do the tight rope-walking to transform the Corporation from loss making unit to profitable one, and how it overcame the multiple (but not unusual) pressures from various quarters. The various techniques that paid off included tough-minded management approach, managing the interface with the government, influencing stockholders, involving key employees, creating trust and sharing of goals. The need for institutionalising changes is underscored.

Since the book is limited to the contributions made at the seminars, its limitations in terms of scope (or coverage) are quite obvious. It is by no means a comprehensive book of readings in strategic management of public enterprises. Several strategic issues do not find a place in the book, for instance, the practice of corporate planning which has been in vogue in several PEs in India and presumably in several other countries. In this context, topics like what is the state of art of corporate planning in the PEs; what has been the experience in this respect and what pitfalls have been observed

in practising this tool, and how and to what extent corporate plans are being dovetailed with strategic planning and how MOUs are being integrated with corporate plans have been left out.

Privatisation is one strategic issue which has engaged the attention of governments in developing countries in the wake of pressures of liberalisation. One wishes that this and some other issues like feasible modalities for public sector restructuring, divestiture (partial-total), leasing, franchising, government distancing of public enterprises, strategic management of human resources, including human resources development and training were more adequately dealt with. A thorough discussion of these issues would have provided a rich portfolio of policy choices. A discussion of these topics would have also indicated the extent to which strategic thinking prevails in and strategic management is practised in PEs.

Some of the papers hardly have any strategic content. They are readings more in General Management. In all the three sections, particularly in Sections II and III, strategic import of the contributions is quite incipient. The material seems to be more on General Management. The book's title cannot be said to be very representative of the developing countries. An overwhelming place has gone to India, particularly, in the first two sections. In Section I, which is mainly conceptual, only one reading is from a country other than India. Section II consists of first person accounts of all Indian CEOs. It is only in Section III that case studies pertaining to other developing countries have been included. But again, the geographic expanse is quite limited. Case studies relating to some other countries, for instance, Tanzania,

Nigeria, Thailand and Zambia would have enhanced the value of the book.

If the book had been subjected to linguistic editing before printing, the flaws, especially in the editors' introduction to various sections would have been taken care of. Copy editing of the book (sec-

tion heading, sub-headings, etc) and arrangement of the text could have been better.

Notwithstanding the shortcomings, the book is a worthy attempt to paint public sector scenario on a wider canvas and is a useful addition to the literature on public enterprises.

COMBINED PREMEDICAL TEST (CPMT)-1998

CPMT98

(Conducted by University of Roorkee, Roorkee)

FOR ADMISSION TO FIRST YEAR CLASS OF M.B.B.S., B.D.S., B.H.M.S., B.A.M.S. & B.U.M.S. COURSES IN THE STATE OF UTTAR PRADESH

Combined Premedical Test (CPMT-98) will be held on Monday, June 15, 1998 and Tuesday, June 16, 1998 at several centres in Uttar Pradesh to draw up the merit list to select eligible candidates for admission to the first year class of M B B S, B D S, B H M S, B A M S and B U M S courses of 1998-99 session in Government and Private Medical, Dental, Homoeopathic, Ayurvedic and Unani Colleges of Uttar Pradesh. The test will be conducted in Physics, Chemistry, Botany, Zoology and Hindi.

ELIGIBILITY CRITERIA

(a) **Minimum Educational Qualifications :** (i) A pass in Intermediate Science (Biology Group) of U P Board or equivalent (ii) A pass in Madhyama examination with science subjects of Sampurnanand Sanskrit Vishwavidyalaya, Varanasi (for B A M S course only) (iii) Candidates appearing at the above examinations in 1998, are also eligible provided that they produce proof of passing the qualifying examination at the time of first counselling (iv) Candidates opting for B U M S, should have also passed Urdu examination equivalent to eighth class.

(b) **Conditions of Eligibility :** (i) Candidates must be Indian Nationals only (ii) Candidates must be sons, daughters or spouse of (1) permanent residents/native of U P OR (2) employees of Govt. of India serving in U P at the time of application, OR (3) employees of Government of India undertakings located in U P and serving in U P at the time of application, OR (4) Defence personnel posted in U P at the time of application.

(c) **Minimum Age Limit :** The candidates should have completed 17 years of age on December 31, 1998.

RESERVATION

Reservation for SC, ST and OBC are available as per U P Government policy. Some seats are also reserved for dependents of freedom fighters, sons/daughters of those killed or disabled in war and physically handicapped.

APPLICATION FORM AND INFORMATION BROCHURE

The information brochure stating the details of eligibility criteria, reservation etc. and application form may be obtained from authorised branches of Punjab National Bank in the following cities on all bank working days from March 02 to March 28, 1998, on payment of Rs 300/- and Rs 5/- towards bank service charges.

Agra, Aligarh, Allahabad, Bareilly, Bulandshahar, Dehradun, Etawah, Faizabad, Ghaziabad, Gorakhpur, Haldwani, Hardoi, Hardwar, Jhansi, Jaunpur, Kanpur, Lucknow, Mathura, Meerut, Mirzapur, Moradabad, New Delhi (Tropical Building, Connaught Place), Noida, Raibareilly, Roorkee, Saharanpur, Sitapur, Srinagar (Garhwal), Sultanpur, Varanasi and Unnao.

IMPORTANT DATES

Sale of application form begins on	: 2nd March 1998
Last date for sale of application form	: 28th March 1998
Last date for receipt of application form	: 31st March 1998
Dates of examination	: 15th & 16th June 1998

RECEIPT OF APPLICATION FORM

The last date of receipt of application form complete in all respects by Registered/Speed Post at the office of Chairman CPMT-98 is March 31, 1998.

Advt. No.
UOR/CPMT-98/2
Feb. 14, 1998

CHAIRMAN CPMT-98
W.R.D.T.C. Building, University of Roorkee
Roorkee-247 667

Frank and Fair

Mamota Das*

Atma Ram. *Education For the Poor*. Delhi, B.R. Publishing Corporation, 1997. Pp. 124. Rs. 210/-.

The book *Education For the Poor* contains a wide range of topics, all crucial and relevant in the Education system of India. The book commences with an introduction which acts as a precursor of what is to follow. In this section, the imbalances in education planning and management regarding rural and urban regions are sharply brought out. Indeed, it sounds like an indictment of policy makers and top managers of education. They will have to revisit their priorities or history would be very harsh on them regarding their role in promotion and development of education for the poor. The author, as the theme warms up, lucidly brings out the neglect of education for the poor in the rural regions.

Through well thought out topics he graphically paints a dismal picture of the education for the poor. Topics handled in this title include elementary education, girls' education and placement, educating the tribals, conduct of examinations, private coaching, channelising the youth energy, higher education, research activity, emerging role of principals, autonomous colleges, fake institutions and degrees, education management for the poor and education for all. In each of these topics the author highlights the issues and also the way forward. The solutions suggested are pragmatic

based on the authors' long association and experience in the field of education as a practising teacher and an outstanding top administrator. Indeed, such seemingly unsurmountable problems as unemployment, can be resolved through proper restructuring and revamping the education system and in particular, in the rural regions. This entails proper prioritising of the needs of the country and fair distribution of resources.

The long period of neglect inflicted on rural regions would have to be borne in mind in allocation of resources. He adds the rider that it is a fact that majority of the citizens live in the rural regions and if democratic principles are to be adhered to the time for redressing the ills inflicted on the rural regions is ripe.

The author has not spared the half-hearted attempts made to strengthen education system. In place of these weak-kneed efforts a thorough overhaul of basic education is opined. This includes inner structuring, adoption of effective and practical strategies. Other

related issues such as categorisation of teachers and provision of intensive orientation programmes should be seriously considered.

Regarding universalisation of education up to elementary level, privatisation is pointed as the way out of the problem. Private initiative, as rightly noted, should be fully supported.

Reflecting on Education for Girls, the author calls for thoroughly thought out and realistically designed schemes and projects. In a parting shot, he asserts that these projects can only bear fruit if women are totally involved from planning to implementation stage.

The phenomenon of Entrance Tests is also tackled in terms of their utility and feasibility in all the stages of education. The author argues that the problem is not with their importance but on how they are conducted. He also notes that nothing is inherently wrong in making selection. The way out is provision for adequate funds and staffing competent teachers to general type of schools. This would reduce the importance of these tests and eventually every school would be a centre of excellence.

Higher Education and Research has also been examined. The situation in institutions of higher learning is not very pleasant either. The number of unem-



National Council of Educational
Research and Training

Sri Aurobindo Marg, New Delhi-110 016

CORRIGENDUM

Reference advt No davp 97/709 published in this newspaper on Feb 23, 1998 regarding various academic posts in the NCERT Pay scale for the post of Headmaster may be read as Rs 3000-4500 and not as rendered. Scale of pay for the posts advertised are pre-revised. The last date for sending applications to Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi-110 016 has been extended upto 15.3.1998. Other terms and conditions remain the same.

—davp 780(26)97

*Professor and Head, Department of Education, Dean, Faculty of Education, Annamalai University, Annamalai Nagar-608 002 Tamilnadu (India).

ployed graduates and postgraduates is on the increase. Very many qualified persons are vying for very few posts which results in all kinds of pressures. The solution, the author observes, is to restrict higher education to a few. Other opportunities apart from university education should be encouraged. Departments and agencies should recruit school leavers and give them the required training. At the same time education at elementary and secondary school levels should be strengthened and streamlined. Expansion in higher learning should be based on the country's needs. The focus and the watchword should be achievement of a quality higher education.

Research pursuits being pursued leave much to be desired. Most of the areas being researched are in social sciences and humanities, which are repetitive and general. Most disciplines are not being explored. Regarding theses most remain unpublishable and Ph D degree projects take rather too long to complete. The author suggests the need to conduct research in problems facing the rural poor. By doing so research effort will not only lend to self-improvement but also improve others.

Finally, the author has used a down-to-earth engagement style which is a welcome departure from the usual dry textbook approach. In a sober but light hearted style he takes the reader through sensitive issues and points the way out of the problems. Undoubtedly, educationists, though uncomfortable, will find it difficult to put the book down once they start reading. Indeed, this is a very useful book for educational administrators and planners. Other educational practitioners will also find the book very stimulating and refreshing.



INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY

Powai, Mumbai-400 076.

Advt. No. L-27/97-98

IIT Bombay invites applications from well qualified candidates (Indian Nationals only) for faculty positions at the level of **Assistant Professor** in its various academic departments, centres and interdisciplinary programmes, and the post of **Senior Research Engineer** in the Advanced Centre for Research in Electronics

Departments : Aerospace Engineering, Chemical Engineering, Chemistry, Civil Engineering, Computer Science & Engineering, Earth Sciences, Electrical Engineering, Humanities & Social Sciences, Mathematics, Mechanical Engineering, Metallurgical Engineering & Materials Science and Physics.

Centres : Advanced Centre for Research in Electronics, Biotechnology Centre, Centre for Environmental Science & Engineering, and Industrial Design Centre.

Interdisciplinary Groups : Industrial Engineering & Operations Research, and Reliability Engineering.

School : School of Management

Qualifications : Ph D with a First Class or equivalent (in terms of Grades etc.) at the preceding degree in the appropriate branch and with a very good academic record throughout (for all Departments, Centres, Schools and Interdisciplinary Groups excepting Industrial Design Centre)

A good basic degree/diploma in Architecture/Applied Art/Engineering & a Ph.D degree/P.G qualification in Design and/or related areas (for Industrial Design Centre only)

EXPERIENCE : A minimum of 3 years teaching/research/industrial experience as on the last date for receipt of applications

EMOLUMENTS : Scale of Pay Rs 3700-125-4950-150-5700. Total emoluments on the minimum of the scale excluding H.R A Rs 10,590/-

The areas of specialization in which the staff are required will be supplied alongwith the application form, which may be obtained by addressing a self-addressed, stamped (Rs 2 00) envelope (26 cm x 11 cm) to the Registrar, IIT Bombay, Powai, Mumbai-400 076. The cover must be superscribed "Request for Application Form for the post of Assistant Professor/Senior Research Engineer"

Candidates in India must apply on the prescribed application form. However, Indian Nationals abroad may apply on plain paper. Such applications must be complete with full details of educational qualifications including year of obtaining Ph D, list of publications (with reprints of the best papers), teaching/research/industrial experience alongwith the names and addresses of three referees, who may be requested to send their reports directly in confidence, to the Registrar, IIT-Bombay.

Last date for issue of applications by post : March 30, 1998

Last date for receipt of applications

from candidates within India : April 7, 1998

from candidates abroad : April 15, 1998

(1) Separate applications must be sent if a candidate is applying for a position in more than one Department/Centre, etc. (2) Normally, new faculty appointments are made in the institute at the Assistant Professor's level. However, candidates applying for the post of Assistant Professor may be considered for the post of Lecturer on a contract basis for 3 years if they do not have the requisite experience, but are otherwise qualified. (3) The Institute reserves the right to fill or not to fill any or all the posts advertised. (4) Mere fulfilment of the qualifications and experience requirement laid down does not entitle a candidate to be called for interview. (5) No correspondence will be entertained from candidates regarding postal delays, conduct and result of interview and reasons for not being called for interview. (6) Suitable residential accommodation is provided on the campus depending upon the vacancies available

REGISTRAR

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities

AGRICULTURAL & VETERINARY SCIENCES

1 Bhaidas Patil **Effect of integrated nutrient management on the forms of soil N, P & K and their availability under Sorghum wheat sequence in vertisol.** (Dr K R Sonar), Department of Agricultural Chemistry and Soil Science, Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmednagar.

Agronomy

1. Gupta, Kailash Chand. **Effect of irrigation and N-levels under varying sowing dates on productivity of barley (*Hordeum vulgare* L. sensu lato)** (Dr S M Singh), Department of Agronomy, Rajasthan Agricultural University, Bikaner.

2. Kumar, Tejendra. **Studies on the effect of tillage and weed control on the moisture use and yield of greengram (*Vigna radiata* (Linn) wilczek).** (Dr M S Shaktawat), Department of Agronomy, Rajasthan Agricultural University, Bikaner

3. Nepalia, Virendra **Studies on weed management and sulphur nutrition in mustard (*Brassica juncea*(L) Czern & Coss) and their residual effect on summer greengram (*Vigna radiata*(L) Wilczek).** (Dr G L Jain), Department of Agronomy, Rajasthan Agricultural University, Bikaner

4 Patil Ramdas, Haribhau. **Integrated nutrient supply system in legume-wheat cropping.** (Dr S H Shinde), Department of Agronomy, Mahatma Phule Krishi Vidyapeeth, Ahmednagar.

5 Singh, Supindra Pal **Impact of herbicidal weed control on nitrogen use efficiency of mustard (*brassica juncea*(L) czern and coss)** (Dr M S Shaktawat), Department of Agronomy, Rajasthan Agricultural University, Bikaner

Animal Nutrition

1 Choudhary, Sheela **Comparative efficiency of various urea treatments in amelioration of crop residues vis-a-vis degradability in different Rumen environments.** (Dr O P Mathur), Department of Animal Nutrition, Rajasthan Agricultural University, Bikaner

2 Mathur, Basant K. **Effect of replacement of cotton (*Gossypium* spp) seed cake by tumba (*citrullus colocynthis*) seed cake and sun dried poultry droppings on the performance of sheep.** (Dr G R Purohit), Department of Animal Nutrition, Rajasthan Agricultural University, Bikaner

Genetics

1 Hardeep Kaur **Identification of species-specific sequences in *Aegilops* species.** Department of Genetics, Punjab Agricultural University, Ludhiana.

2 Narinder Pal Kaur **Construction of molecular linkage maps in diploid wheat.** Department of Genetics, Punjab Agricultural University, Ludhiana

3. Sharma, Kailash Chandra **Genetic architecture of fodder yield and quality characters in pearl millet (*pearlaetum typhoides* (Burn.) S & H).** (Dr R K Sharma), Department of Genetics, Rajasthan Agricultural University, Bikaner

Horticulture

1 Matoria, Gagan Ram. **Combining ability and stability studies in bitter gourd (*Momordica charantia* linn).** (Dr R C

Khandewal), Department of Horticulture, Rajasthan Agricultural University, Bikaner.

2 Pandey, Devendra. **Studies on floral malformation in mango (*Mangifera Indica* L).** Department of Horticulture, Indian Agricultural Research Institute, New Delhi.

Plant Breeding & Genetics

1. Vaishnavi, Rakesh **Cytogenetic analysis and differential response of selected Rye-introgressed wheat genotypes for tolerance to cold and drought stresses.** (Dr G S Sethi), Department of Plant Breeding & Genetics, Himachal Pradesh Krishi Vishvavidyalaya, Palampur.

Soil Science

1. Bhargava, Satyendra. **To study the efficacy of rock phosphate on calcareous soil by partial acidulation and solubilization.** (Dr S N Sharma), Department of Soil Science, Rajasthan Agricultural University, Bikaner

BIOLOGICAL SCIENCES

Biochemistry

1 Gulati, Anamika **Modulation of secondary metabolite biosynthesis in cultures of *Artemisia Annua* and *Thevetia nerifolia*.** (Prof S K Jain), Department of Biochemistry, Jamia Hamdard, Hamdard Nagar, New Delhi

Biophysics

1 Kaur, Manjinder **Studies on the role of gallic acid and prophyllagallate in chemical carcinogenesis.** Department of Biophysics, Postgraduate Institute of Medical Education & Research, Chandigarh

Bioscience

1. Ashok Kumar **Genetics polymorphism in natural populations of *Drosophila* species from India.** (Dr Ravi Parkash), Department of Bioscience, Maharshi Dayanand University, Rohtak.

2. Dahiya, Neena. **Population genetics studies in some Indian drosophilids.** (Dr Ravi Parkash), Department of Bioscience, Maharshi Dayanand University, Rohtak.

3 Dev Karan **Genetic divergence among latitudinal populations of *Drosophila* species.** (Dr Ravi Parkash), Department of Bioscience, Maharshi Dayanand University, Rohtak.

4 Sarvepalli, Sri Devi **Impact of heavy metals of industrial effluents on bluegreen algae, rice and fish/zooplankton in a paddy field.** (Dr K V Sastry), Department of Bioscience, Maharshi Dayanand University, Rohtak.

Biotechnology

1. B Sudha. **Adrenergic and serotenergic function in DNA synthesis during rat liver regeneration and in hepatocyte cultures.** (Dr C S Poulse), Department of Biotechnology, Cochin University of Science and Technology, Kochi.

2. Sharma, Neelam. **To study the role of various forms of HDL in the precess of atherosclerosis in rhesus monkeys.** Department of Biotechnology, Postgraduate Institute of Medical Education and Research, Chandigarh.

Botany

1. Khagapur A Ashok Kumar. **Epidemiological investigations on fugarial disease complex in Sorghum.** (Dr A H Rajasab), Department of Botany, Gulbarga University, Gulbarga.

2. Prameela, K. **Studies on nutrient cycling, productivity, microbial associations in the grassland ecosystems of Yellandu coal belt area in Khammam.** (Dr M A Singara Charya), Department of Botany, Kakatiya University, Warangal.

3. Sutar, Sangeeta Sahebrao **Morphological studies in some tubiflorae.** (Dr N P Vaikos), Department of Botany, Dr Babasaheb Ambedkar Marathwada University, Aurangabad.

4. Patel, Rajesh **Regulation of srikelet development in rice panicle by growth substances.** (Dr P K Moharatra), Department of Life Science, Sambalpur University, Jyoti Vihar, Burla.

Marine Biology

1. Menon, Nandini N. **Investigations on the effects of petroleum hydrocarbons on the marine bivalves perna viridis(linnaeus) and sunetta scripta (linne).** (Dr N R menon), Department of Marine Biology, Cochun University of Science and Technology, Kochi.

2. Bose Sivachandra, K. **Studies on the reproductive physiology of the green tiger prawn penaeus (Penaeus) semisulcatus de haan.** (Dr C Suseelan), Department of Marine Science, Cochun University of Science and Technology, Kochi

3. Ignatus, C A **Ecological and productivity studies of prawn farms in central Kerala.** (Dr S Sivakamu), Department of Marine Sciences, Cochun University of Science and Technology, Kochi

4. Muthuvelan, B **The study on the seaweeds of Andaman Nicobar group of Islands** (Dr V S K Chennubhotla), Department of Marine Science, Cochun University of Science and Technology, Kochi.

5. Sree Kumar, R **Studies on the ecophysiology of periphytic algae in Cochun estuary.** (Dr K J Joseph), Department of Marine Sciences, Cochun University of Science and Technology, Kochi

Microbiology

1. G Sailaja Rani **Cephaamycin C production by streptomyces clavuligerus mutants and development of a superior strain for industrial application by protoplast fusion** (Dr Padmasridhar), Department of Microbiology, Osmania University, Hyderabad

Zoology

1. Babu, Sudhakara, Ch. **Studies on chawki rearing, cocoon and egg preservation in tasar culture.** (Prof A Purushotham Rao), Department of Zoology, Kakatiya University, Warangal

2. Palanichamy, M **Cytogenetic and genetic studies on the chocolate mahseer, acrossocheilus heagonolepis.** (Prof K Chatterjee), Department of Zoology, North Eastern Hill University, Shillong

3. Suganthi Shyla, A. **Studies on some nogenesis and sperm storage in brochuran decapods.** (Dr G Anil Kumar), Department of Zoology, University of Calicut, Calicut

EARTH SYSTEM SCIENCES

Environmental Studies

1. Florence Maria, E J. **Sapstain microorganisms associated with selected commercially important timbers of Kerala and their possible control.** (Dr J K Sharma), Department of Environmental Studies, Cochun University of Science and Technology, Cochun.

Geology

1. Reddy, Shanti Swaroop. **Thermal and shortwave infrared remote sensing techniques for the detection and monitoring of coal mine fire and volcanic eruption.**(Dr A Bhattacharyulu), Department of Geology, Osmania University, Hyderabad

Geophysics

1. Badarudeen, A **Sedimentology and Geochemistry of some selected mangrove ecosystems of Kerala, South West coast**

of India. (Dr K Sajan), Department of Geophysics, Cochun University of Science and Technology, Kochi.

Oceanography

1. Prasad, Srinivasa V. **Importance and applications of satellite retrieved meteorological parameters in N W P.** (Prof K P R Vittal Murty), Department of Oceanography, Andhra University, Waltair

ENGINEERING SCIENCES

Agricultural Engineering

1. Rathore, Narendra Singh. **Study on biomass based stirling engine for on farm applications.** (Dr Pratap Singh), Department of Agricultural Engineering, Rajasthan Agricultural University, Bikaner.

2. Singh, Girja Shankar. **Application of mathematical modelling techniques for optimal design of few engineering systems.** (Dr S B L Beohar and Dr S P Singh), Department of Engineering, Guru Ghasidas University, Bilaspur.

MATHEMATICAL SCIENCES

Mathematics

1. Islam, Anwarul Md **On the optical-mechanical analogy in general relativity and some related studies.** (Dr K K Nandi), Department of Mathematics, University of North Bengal, Raja Rammohunpur, Darjeeling

2. Malviya, Reeta **On certain concepts in fuzzy topology.**(Dr S S Thakur), Department of Mathematics, Rani Durgavati Vishwavidyalaya, Jabalpur.

3. Mazumdar, Lipika **A study of algebraic topological properties of multivariate piecewise polynomials.**(Dr Satya Deo Tripathi), Department of Mathematics, Rani Durgavati Vishwavidyalaya, Jabalpur

4. Panshetty, S V **Graph equations and some results in graph theory** (Dr N Sridharan), Department of Mathematics, Gulbarga University, Gulbarga

5. Selvam, A **Some problems concerning neighbourhood regularity and labellings of graphs** (Dr R Balakrishnan), Department of Mathematics, Annamalai University, Annamalaiagar

6. Valiaveetil, Rajendran **A study of normed division domains and their analogues with applications to number theory** (Dr R Sivaramakrishnan), Department of Mathematics, University of Calicut, Calicut

MEDICAL SCIENCES

Parasitology

1. Pantha, Ajaib Singh **Differentiation of giardia lamblia strains isolated from symptomatic and asymptomatic patients through DNA probe(s).** Department of Parasitology, Postgraduate Institute of Medical Education and Research, Chandigarh

PHYSICAL SCIENCES

Chemistry

1. Ajitha Devi, K. **Studies on transction metal complexes of some bidentate schiff bases** (Dr Geetha Parameswaran), Department of Chemistry, University of Calicut, Calicut

2. Bhagwandas Samnani Prakash **Correlation of figand nature and catalytic activity of metal complexes.** (Prof P K Bhattacharya), Departmet of Chemistry, Maharaja Sayajirao University of Baroda, Vadodara

3. Bharatsinh, Jadeja Raghuvirsinh **Studies on synthesis and characterisation of medicinally important compounds.** (Dr N K Undavia), Department of Chemistry, Bhavnagar University, Bhavnagar

4. Ganapathy, A **NMR mass and Ir spectral studies of some symmetric long-chain disulfones.**(Dr S Kabilan), Department of Chemistry, Annamalai University, Annamalaiagar

5. Gopal, Venkat Raj **Geometrical photoisomerization via highly polarized/charge transfer singlet excited state.** (Dr V Jayathiratharao), Department of Chemistry, Osmania University, Hyderabad.

6. Gowda, Shankare, K V. Homogeneous hydrogenation of organonitro compounds and schiff bases using rhodium and ruthenium complexes as catalysts. (Dr E G Leelamani), Department of Chemistry, Bangalore University, Bangalore.

7. Hussain, Khaja Azhar. Syntheses of some unusual amino acids and cyclic peptides. (Dr T K Chakraborty), Department of Chemistry, Osmania University, Hyderabad

8. K Sai Lakshmi Structural, electrical, magnetic and mossbauer studies of antimony/molybdenum substituted manganese-zinc ferrites. Department of Chemistry, Andhra University, Waltair.

9. Mathew George Organic materials for nonlinear optics. Synthesis and photophysical studies in some donor-acceptor substituted molecules. (Dr Suresh Das), Department of Chemistry, Mahatma Gandhi University, Kottayam.

10. Pande, Manorama. Fluorescence quenching of naphthalene derivatives in microemulsions. (Prof G B Behera), Department of Chemistry, Sambalpur University, Jyoti Vihar, Burla.

11. Rao, Venugopala K. Studies on air and water pollution in major ports of India. (Dr S C S Rajan), Department of Chemistry, Andhra University, Waltair.

12. Rathna, G V N Hydrogels of interpenetrating polymer networks: synthesis, swelling behaviour and applications. (Dr Chatterji, P R), Department of Chemistry, Osmania University, Hyderabad

13. Rema, V T. Metal chelates of anylazo dicarbonyl compounds. (Dr K Krishnakutty), Department of Chemistry, University of Calicut, Calicut.

14. Sadanand, Thomas D Kinetics of hydrogenation of some olefinic compounds catalysed by anchored montmorillonitebipyridine palladium (i) acetate. (Prof P K Saiprakash), Department of Chemistry, Osmania University, Hyderabad.

Physics

1. Ambily, S. Studies on the electrical conductivity, photoconductivity, optical and structural properties of the metal substituted phthalocyanine thin films - CuPC, CoPC and PbPC. (Dr C S Menon), Department of Physics, Mahatma Gandhi University, Kottayam.

2. B Ramesh Structural, magnetic and electrical studies of zirconium and titanium substituted manganese zinc ferrites. (Prof S Bangaraju), Department of Physics, Andhra University, Waltair

3. John Varghese, K. Influence of dust particles on some electromagnetic waves in bi-lorentzian and Maxwellian plasmas. (Dr Chandu Venugopal), Department of Physics, Mahatma Gandhi University, Kottayam.

4. Katare, Rajesh Kumar. Application of impedance spectroscopy in the study of electronic ceramics. (Dr Lakshman Pandey), Department of Physics, Rani Durgavati Vishwavidyalaya, Jabalpur

5. Kumar, Vinod A M Fusion measurements in the near and subbarrier regions for $^{48}\text{Ti}+^{58, 60, 64}\text{Ni}$ system. (Dr K M Varier), Department of Physics, University of Calicut, Calicut.

6. Murthy, Krishna K. Characterization and irradiation studies on some materials (studies on some bio-materials). (Prof Lalitha Sirdeshmukh), Department of Physics, Kakatiya University, Warangal

7. Sreelatha, C J. Investigations on physical properties of binary mixture exhibiting lyotropic mesomorphism. (Prof Ch Satyanarayana), Department of Physics, Kakatiya University, Warangal

8. Tiwari, Chandra Shekhar. Studies on the mechano-thermo- and photo-luminescence of Dy, Sm, Im and Mn doped CaSO_4 single crystals. (Dr B P Chandra), Department of Physics, Rani Durgavati Vishwavidyalaya, Jabalpur.



UNIVERSITY OF DELHI

(FACULTY OF MEDICAL SCIENCES)

ADMISSION TO MBBS/BDS COURSES-1998

Applications are invited on the prescribed form for admission to MBBS/BDS Courses so as to reach the Asstt. Registrar, Faculty of Medical Sciences, University of Delhi (6th Floor, V.P. Chest Institute Building), Delhi-110 007 by Thursday the 2nd April, 1998.

ELIGIBILITY REQUIREMENTS FOR ENTRANCE EXAMINATION AND ADMISSION :

Candidate who has passed/appeared in 12th Class Examination under 10+2 system conducted by the Central Board of Secondary Education/ Council for the Indian School Certificate Examination/Jamia Millia Islamia, New Delhi (except Patrachar Vidyalaya and Open Schools) with required subjects i.e. Physics, Chemistry, Biology and English (Core) securing minimum 50% marks in aggregate in these subjects (For SC/ST candidates 40% marks in aggregate in the required subjects) from the recognised schools conducting regular classes situated within the National Capital Territory of Delhi only. Female SC/ST candidates who have passed the qualifying examination (10+2) from Outside Delhi are eligible to appear in the Entrance Examination for admission to Lady Hardinge Medical College only.

The reserved seats for Government of India Nominees and Children/Widows of Armed Personnel disabled/killed in action for the MBBS Course will be filled up in the manner mentioned in the Bulletin of Information.

The Entrance Examination for admission to MBBS/BDS Courses will be held on 23rd May, 1998 (Saturday).

Application form alongwith Bulletin of Information can be had from (the office of the Faculty of Medical Sciences, University of Delhi) 1st Floor, V.P. Chest Institute Building, University of Delhi, Delhi-110 007 and from the office of the Dean/Principal, Maulana Azad Medical College/Lady Hardinge Medical College, New Delhi/University College of Medical Sciences, Shahdara, Delhi-110 095 on cash payment of Rs. 50/- or (by post Rs. 60/-) by sending a Bank Draft drawn in favour of the Registrar, University of Delhi, payable at State Bank of India, Delhi University Branch from 3rd March, 1998 (between 10 00 A M and 1 00 P M) on working days. No request for issue of Bulletin of Information by post will be entertained after 13th March, 1998.

Application accompanied by the Bank Draft of Rs. 200/- (Non-refundable) drawn on the State Bank of India, Delhi University Branch, as examination fee in favour of the Registrar, University of Delhi, must reach the Asstt. Registrar, Faculty of Medical Sciences, University of Delhi, on or before 02.04.1998 either in person or by registered post. Under no circumstances any application received after the prescribed date will be entertained.

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED.

Delhi, March 1, 1998

**K.K. PANDA
(REGISTRAR)**

UNIVERSITY GRANTS COMMISSION

BAHADUR SHAH ZAFAR MARG

NEW DELHI-110 002

Applications are invited for three posts of Education Officer in the office of the UGC (2 reserved for OBC and one unreserved)

The applications in the enclosed prescribed proforma addressed to the Secretary, UGC, Bahadur Shah Zafar Marg, New Delhi-110 002, giving names of two persons to whom reference may be made by the Commission should reach the office of the UGC within one month from the date of publication of the advertisement. Persons already in employment should send their applications through their employer otherwise application will not be entertained. Incomplete applications and applications received after the last date will not be entertained.

The details of the qualifications, scale of pay, age and age of retirement in respect of Education Officer is given as under :

Qualification :

- (i) Minimum IIInd class Master's Degree with 55% marks from recognised University
- (ii) 5 years experience of Teaching/Research/Educational Administration.
- (iii) The work is largely concerned with processing and evaluation of development and research proposals of Universities and colleges, preparation of status reports, initiation, implementation and co-ordination of higher educational programmes. These may include also innovative education and quality improvement schemes, examination reforms, evaluation techniques and other aspects essential for the improvement and co-ordination of standards of higher education. The officer is liable to be transferred and posted to any Regional Office of the UGC set up/to be set up in the country.

Scale of Pay : Rs 10000-325-15200 plus usual allowances (revised) as admissible from time to time to Central Govt servants in corresponding posts.

Age : 40 years (Relaxable by 5 years for employees of Central & State Govt Universities & autonomous bodies and candidates belonging to SC/ST category as per rules on the subject)

Age of retirement : 58 years

Period of Probation : 2 years

The posts of Education Officers are temporary but likely to continue. The retirement benefits in the shape of GPF-cum-Pension-cum-Gratuity are available to the employees of the UGC. The employees are also entitled to the benefits of CGHS and allotment of residential accommodation in the General Pool in their turn. The employees of the UGC are also eligible for the Life Insurance Corporation Group Insurance Scheme as made applicable from time to time.

It is important to note that possession of mere eligibility conditions will not entitle a person for consideration of the Selection Committee. The decision of the screening committee appointed for the purpose to short list the candidates from amongst the total number of applications received will be binding on all. Incomplete applications will not be considered.

The UGC reserves the right not to fill up the post and its decision in this regard, shall be final.

The officer selected can be posted at any Regional Offices of the UGC as and when needed.

PROFORMA FOR APPLICATION

Post applied for _____ under _____ Category _____

1 Name of the Applicant
(BLOCK LETTERS)

2 Address

(i) Correspondence

Pin _____ Tel _____ Fax _____

(ii) Permanent

3 Nationality

4 Sex

Male/Female

5 Marital Status

Married/Single

(Tick the relevant one)

6 Date of Birth

D D M M Y Y

7 Father's/Husband's Name

8 Category

(Attach attested copy of
the certificate in case of
SC/ST/OBC)

☐ SC ☐ ST ☐ OBC ☐ GENERAL

(Tick the relevant one)

9 Qualifications (in chronological order starting from SSLC/HS onwards)

(Attach attested photocopies of each certificate)

Degree/ Diploma	Board/ Univ	Year of Passing	Subject	Marks obtained (in % only)	Division/ Grade
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10. (a) Total Experience in Years _____ Months _____

Name & Address of Employer	Post Held (Scale/Basic/ Salary)	Period of Service		*Description of the Work
		FROM	TO	

*Details can be given at the end of item 10(a)

Detailed Break-up of your earnings in your last/present job -

Basic Pay : _____ Other Allowances _____ Total Emol : _____

Next Increment due on _____ Salary Expected _____

Joining Time Required : _____

10 (b) Further Classification of Experience as depicted in 10(a) in the following areas

- | | | |
|--|----------------------------|-----------------------------|
| (i) Teaching | <input type="text"/> Years | <input type="text"/> Months |
| (ii) Research | <input type="text"/> Years | <input type="text"/> Months |
| (iii) Educational
Administration | <input type="text"/> Years | <input type="text"/> Months |
| (iv) Electronic
Data Processing (EDP) | <input type="text"/> Years | <input type="text"/> Months |

(EDP experience may include the specific details like application software designed, developed and implemented, platform used etc)

(The breakup of experience shown under 10(b) should be equivalent to the total experience shown in 10(a)

11 REFERENCES -

- 1
- 2

DECLARATION

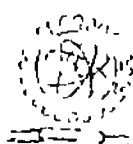
I solemnly declare that above entries in the application form are true and correct to the best of my knowledge and belief

Place _____

Date _____

(Signature of Applicant)

—davp 823(21)97—



N.B.K.R. INSTITUTE OF SCIENCE & TECHNOLOGY

VIDYANAGAR-524 413, NELLORE DIST., (A.P.)

(Advertisement No. 2/98)

Applications are invited to reach the Director of the Institute on or before 10th April 1998 for the following posts

1. PROFESSORS :

- a) Electrical & Electronics Engineering
- b) Electronics & Communication Engineering
- c) Computer Science & Engineering

2. ASSISTANT PROFESSORS :

- a) Mechanical Engineering
- b) Electronics & Communication Engineering
- c) Computer Science & Engineering

3. LECTURERS :

- a) Civil Engineering
- b) Electrical & Electronics Engineering
- c) Electronics & Communication Engineering
- d) Mechanical Engineering
- e) Computer Science & Engineering

QUALIFICATIONS :

PROFESSOR

A First Class Master's Degree with ten years of teaching/research/industrial experience, Ph D is preferred

ASSISTANT PROFESSOR

A First Class Master's Degree with five years of teaching/research/industrial experience

LECTURER

A First Class M Tech. for posts (a), (b), (c) & (d)

A First Class M Tech./B Tech for post (e)

PAY :

Professor Rs. 4500-150-5700-200-7300/-

Asst. Professor Rs 3700-125-4950-150-5700/-

Lecturer Minimum of Rs 2425/- (basic) in the scale of Rs 2200-75-2800-100-4000/-

Advance increments may be granted in deserving cases Preference will be given to the candidates belonging to SC/ST/BC

Applications may be submitted on plain paper giving full particulars regarding qualifications, experience etc Copies of certificate/testimonials should accompany the applications



ANNAMALAI UNIVERSITY

MBBS/BDS/BPT/BOT/B.Sc (Nursing) and B. Pharm Degree Courses

ENTRANCE EXAMINATIONS-1998

NOTIFICATION

No. K2/707/Advt No 3/98

Annamalainagar,
20-02-1998

A common Entrance Examinations will be conducted in selected centres in Tamil Nadu by the Annamalai University for the Candidates who intend to seek admission for the following SELF-FINANCING COURSES in the University for the year 1998-99.

COURSES OFFERED

1) M B.B S 2) B D.S 3) B P.T. 4) B O T 5) B.Sc. (Nursing and 6) B.Pharm.

Appearance in the Entrance Examinations is **COMPULSORY FOR THE CANDIDATES** seeking admission to the above courses These Entrance Examinations are for the candidates belonging to **TAMIL NADU AND ALSO OTHER STATES IN INDIA**

This Notification relates only to the **ENTRANCE EXAMINATIONS** Candidates are advised to refer to separate notification to be issued around second week of May 1998 by the University inviting applications for admission to the various Courses

Selection to various courses will be governed by the procedures laid down by the University

GENERAL INSTRUCTIONS

Candidates who are appearing for Higher Secondary or Equivalent qualifying examinations during March-May 1998 and Candidates who have already passed HSC or Other equivalent qualifying examinations are eligible to apply for these entrance examinations

The Entrance Examinations will be conducted in the following schedule and subjects **

Paper 1 Biology (Botany & Zoology - (07-05-98 Forenoon)

Paper 2 Physical Sciences (Physics & Chemistry) - (07-05-98 Afternoon)

**(Questions for the above examinations will be based only on the syllabi and Text Books prescribed for the second year of the Tamil Nadu HSC (Academic) Course)

Admission will be made on the basis of marks obtained in the relevant subjects in the qualifying examination (HSC or equivalent) and in the Entrance Examinations, besides an interview to be conducted by the University

The selection will be made on the basis of aggregate marks obtained in i) Qualifying Examination - 200 ii) Entrance Examination - 100 and iii) Interview - 30

COST OF APPLICATION FORM

The Cost of application form is — Rs 80/-

METHOD OF PAYMENT

Application forms can be obtained **IN PERSON** by **CASH** Payment at the University Cash Counter on all working days

To get application form **BY POST** send a requisition letter along with a Demand Draft for Rs. 80/- drawn in favour of "THE REGISTRAR, ANNAMALAI UNIVERSITY, ANNAMALAINAGAR-608 002" obtained on or after 23-02-98 from **INDIAN BANK/BANK OF MADURALTD/STATE BANK OF INDIA**, payable at Annamalainagar or Chidambaram and a self-addressed kraft envelope of size 35 cm x 15 cm with stamps affixed to the value of Rs 8/- **DRAFT FROM ANY OTHER BANK WILL NOT BE ACCEPTED** Candidates are advised to write their name and address on the reverse of the Demand Draft

Application forms will be sent only by **ORDINARY POST** and the University will not be held responsible for non-receipt of application forms.

Application form will be issued from — 02-03-98

Last date for issue and receipt of filled

in application form in the University — 02-04-98

Date of Entrance Examinations — 07-05-98 (FN & AN)

DR. P.L. SABARATHINAM
REGISTRAR



JAWAHARLAL NEHRU UNIVERSITY

ADMISSION ANNOUNCEMENT 1998-99

The University will hold Entrance Examination on May 15, 16 & 17, 1998 for admission to the following full-time programmes of study at the following 31 cities; Ahmedabad, Aurangabad, Bagdogra, Bangalore, Bhubaneswar, Calcutta, Chandigarh, Chennai, Danapur Cant, (Bihar), Dehradun, Delhi, Dharwad, Guwahati, Goa, Hyderabad, Imphal, Indore, Jaipur, Jammu, Jodhpur, Kochi, Lucknow, Madurai, Mumbai, Port Blair, Ranchi, Sambalpur, Secundrabad (A P), Shillong, Varanasi & Vijayawada (The University reserves the right to change centre of examination without assigning any reasons)

I. SCHOOL OF INTERNATIONAL STUDIES

(i) M.Phil/Ph.D. in International Politics, Organisation, Disarmament & Political Geography, Diplomatic Studies, International Legal Studies, International Trade & Development; South Asian, Central Asian, Southeast Asian & Southwest Pacific Studies, Chinese, Japanese and Korean Studies, West Asian, North African and Sub-Saharan African Studies, American, Latin American & West European Studies and Soviet & East European Studies (ii) M.A. in Politics (with specialization in International Relations), (iii) M.A. in Economics (with specialization in World Economy)

II. SCHOOL OF LANGUAGES

(i) M. Phil/Ph.D. in French, German, Modern Arabic, Russian, Persian, Hindi, Urdu, English, Linguistics including Semiotics and Spanish and Ph.D. in Japanese, Chinese and Modern Western Philosophy (ii) M.A. in English, Linguistics, Hindi, Urdu, Persian, Arabic, Chinese, Japanese, French, German, Russian and Spanish, (iii) B.A. (Honours) in Persian, Modern Arabic, Chinese, Japanese, Korean, French, German, Russian and Spanish (with entry points both to 1st and 2nd year).

III. SCHOOL OF SOCIAL SCIENCES

(i) M. Phil/Ph.D. programmes is offered by following Centres which have their curricular and research work organised on interdisciplinary basis with a focus on some major problems of study, Centres: Economic Studies and Planning, Historical Studies, Political Studies, Regional Development (Geography, Economics, Population Studies), Social Systems, Educational Studies (Psychology, Sociology, Economics and History of Education), and Social Medicine and Community Health (ii) MCH/Ph.D (Master of Community Health) (iii) M.A. in : Economics, Geography, History, Political Science and Sociology.

IV. SCHOOL OF LIFE SCIENCES

(i) M. Phil/Ph.D. in areas of interdisciplinary research: Genetic Engineering, Molecular Biology and Genetics, Bio-Chemistry, Plant and Animal Tissue Culture, Development Biology, Cell Biology, Immunobiology, Neurobiology, Microbiology, Radiation and Cancer Biology, Biophysics, Photobiology, Bioenergetics, Membrane-Biology (ii) M.Sc. in Life Sciences : An integrated interdisciplinary programme in modern biology

V. SCHOOL OF ENVIRONMENTAL SCIENCES

(i) M. Phil/Ph.D. in Environmental Sciences including interdisciplinary areas of Biology and allied fields, Chemistry, Geology and Physics (ii) M.Sc. in Environmental Science. An interdisciplinary course with environmental orientation drawn from relevant areas of Biological, Chemical, Earth and Physical Sciences

VI. SCHOOL OF COMPUTER AND SYSTEMS SCIENCES

(i) M. Phil/Ph.D. & M.Tech/Ph.D. The school offers academic programmes leading to the degrees in diversified areas of computer science and technology. (ii) MCA (Masters of Computer Applications) : 3-year programme open to candidates with adequate competence in Mathematics

VII. SCHOOL OF PHYSICAL SCIENCES

(i) Ph.D. in Physical Sciences (Pure Physics and interface of Physics and Chemistry) The emphasis is on topics of Chemical Physics, Computational Physics, Condensed Matter Physics, Disordered Systems, Mathematical Physics, Nonequilibrium Statistical Mechanics, Nonlinear Dynamics, Quantum Chaos, Quantum Field Theory and Particle Physics, Quantum Optics and Statistical Nuclear Physics, Experimental areas include Complex Fluids, Materials Sciences and Nonlinear Optics (ii) M.Sc. in Physics.

VIII. CENTRE FOR BIOTECHNOLOGY

Ph.D. Research Areas: Plant Molecular Biology, Protein Engineering, Prokaryotic/Eukaryotic Gene Expression, Molecular Biology of Infectious Diseases, Molecular Immunology, Protein Stability, Conformation & Folding, Bio Process Optimisation and Transcription of Eukaryotic genes

GENERAL INFORMATION

Reservation of Seats: 22.5% (15% for SC & 7.5% for ST) and 3% seats are reserved for SC, ST and Physically Handicapped (PH) (with a minimum of 40% disability) candidates respectively

How to apply: Application forms together with detailed instructions including eligibility conditions can be had either personally on cash payment of Rs. 60/- per set between 10.00 a.m. to 1.00 p.m. and 2.00 p.m. to 5.00 p.m. on all working days (Monday to Friday) or by post by sending crossed Indian Postal Order for Rs. 80/- payable to JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI along with a self-addressed (indicating Pin Code), unstamped envelope of not less than the size of 28 cms x 20 cms to THE DEPUTY REGISTRAR (ADMISSION), JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI-110 067. Money Orders are not accepted

Please note that there being different forms and Instructions Booklet for different levels of programmes i.e. (i) M. Phil/Ph.D.; M.Tech/Ph.D. & M.C.H./Ph.D. (ii) M.A., M.Sc./M.C.A. and (iii) B.A. (Hons.) in Foreign Languages and there being separate application form for candidates belonging to SC/ST & PH categories, candidates should clearly indicate in their request as well as on the top of the self-addressed envelope the name of the programme and the category to which they belong for which the form and Instructions Booklet is required.

Candidates can opt upto a maximum of three Fields of Study Subjects/Languages in a single application form to the same level of programme i.e. M.A./M.Sc./M.C.A. or M.Phil/M.Tech/M.C.H./Ph.D. and upto a maximum of five languages in B.A. (Hons.) and are not required to fill separate application forms

ISSUE OF FORMS UP TO MARCH 27, 1998 (IN PERSON) AND MARCH 23, 1998 (THROUGH POST) LAST DATE FOR RECEIVING COMPLETED FORMS: MARCH 31, 1998.

NOTE 1. Candidates who are due to appear in the respective qualifying examination of the current academic year are also eligible to appear in the entrance examination. 2. While the University shall ensure timely despatch of Application Forms soon after receipt of the request from intending candidates, it will, not be responsible for postal delays, if any

For details refer to Admission Announcement in Employment News, dated February 14-20, 1998

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CLASSIFIED ADVERTISEMENTS

INSTITUTE FOR SOCIAL AND ECONOMIC CHANGE

Nagarabhavi P.O. Bangalore-560 072
(ADVT. No. 333/98/23-1-1998)

Applications are invited for three posts of Professor (Development Administration Unit, RBI Endowment Unit and Population Research Centre) and one post of Research Officer (Equivalent to Assistant Professor) (Institution for Self Governance of Community Forestry Resources). Experiences from Three Indian States) on UGC Scale of pay. Summary of Qualifications. Masters Degree in appropriate subjects with at least 50% marks in the aggregate. Ph.D. in the relevant subject/Ten years teaching and/or research experience and publications in the subject for Professor and three years teaching experience for Research Officer. Last date for receipt of filled in application is April 16, 1998. Full advertisement and application form can be had by sending a self-addressed (28x11 cms) and stamped (Rs 4/-) envelope from the Registrar, Institute for Social and Economic Change, Nagarabhavi P.O., Bangalore-560 072.

Bangalore

February 9, 1998

S.N. SANGITA

TILAK MAHARASHTRA VIDYAPEETH (DEEMED UNIVERSITY) GULTEKADI, PUNE-411 037

Applications are invited in the prescribed form for the following posts, so as to reach the undersigned on or before 31st March 1998.

Sr. No.	Name of the Post	No. of Posts	Reservations if any
1	Reader in Sanskrit	1	Open
2	Lecturer in Sociology	1	*S C

(*being advertised for the 5th time)

Qualifications and pay scales for the above posts are as per the norms laid down by the University Grants Commission, the details of which are available along with the application form in the Vidyapeeth on payment of Rs 50/- by cash or Rs 60/- by D.D. in favour of "Registrar, Tilak Maharashtra Vidyapeeth, Gultekadi, Pune-411 037".

Advt. No. : 10/97-98

R.K. Dhavalikar

Date : 19th Feb., 1998

REGISTRAR

INDIRA KALA SANGEET VISHWAVIDYALAYA KHAIRAGARH (M.P.) 491 881 (No. RD/98/) Notification : 1/98

Applications are invited for the posts mentioned below

Professor — (Two) Pay Scale — 4500-7300

One each in Khayal and Kathak/Bharatnatyam Dance (open)

Readers — (Eight) Pay Scale — 3700-5700. Two Readers (1-ST, 1-Open) one in Dhrupad and one in Khayal. One each in Violin, Musicology, Kathak, Bharatnatyam, Painting and History of Indian Art & Culture (6-open)

Note : The Reader in Painting is a temporary post likely to be continued

Lecturers — (Twelve) Pay Scale — 2200-4000. Four Lecturers (1 ST, 1 SC, and 2-Open) Khayal-Two, Thumri-One, Group Singing & Orchestration-One. Two Lecturers (1-ST, 1-Open) in Tabla. One Lecturer (reserved for ST) in Folk Music. One Lecturer each in Bharatnatyam, History of Indian Art & Culture, English, Sanskrit (Research Dept.), Physics of Sound (5 open)

Accompanists — (Six) Pay Scale — 1400-2340 (1-SC, 1-ST, 1-OBC, 3-Open). One each in Sarangi, Mridangam-Karnatic, Sarangi or Harmonium, Pakhwaj (for Vocal) and two in Tabla for Vocal and Kathak Dance

Other Posts (Two-reserved for ST). One Deputy Registrar at the Pay Scale : 3700-125-4700-150-5000 and one Assistant Registrar at the Pay Scale : 3000-100-3500-125-4500

Qualifications :

Professors : An eminent scholar with published work of high quality actively engaged in research. About 10 years experience in teaching and/or research at the doctoral level. Or An outstanding scholar with established reputation who has made significant contribution to knowledge

Reader : Good academic record with doctoral degree or equivalent published work, evidence of being actively engaged in (a) Research or (b) Innovation in teaching methods or (c) Production of teaching materials. About 5 years experience in teaching and/or research provided that at least three years of these years were as Lecturer or in an equivalent position. This condition may be relaxed in case of candidates with outstanding records of Teaching/Research

Lecturers (Music and Dance) :

A A good academic record with at least second class (C in seven point scale) Master's degree in relevant subject or an equivalent degree or diploma recognized by the university and qualified in NET

B Two years research or professional experience or evidence of creative work and achievement in the field of specialization or a combined research and professional experience of three years in the field as an artist of outstanding talent

OR

A traditional or a professional artist with highly commendable professional achievement in the subject concerned

Lecturer (Humanities, Science subjects) :

A A Doctoral degree or research work of equivalent standard and

B Good academic records with at least second class (C in the seven point scale) Master's degree in the relevant subject from an Indian University or an equivalent degree from a foreign university. In view of devel-



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oping inter-disciplinary programmes the degrees under (A) and (B) may be in relevant subjects.

Accompanist : Possession of Higher Secondary Certificate with Vid of the university or/and equivalent diploma, or an artist of B-High grade of All India Radio Proficiency in playing or singing with the subject concerned Applicant should specifically state his special proficiency in accompaniment with a particular music discipline, e.g. Vocal, Instrument, Dance, etc. Qualification may be relaxed in the case of persons found exceptionally good.

Deputy Registrar : Masters degree with at least 55% marks or its equivalent grade Eight years experience as Lecturer in a College or in a university administration with experience in education and administration

OR

8 years administrative experience of which at least 5 years experience as Assistant Registrar or an equivalent post **Desirable :** Proficiency in handling finance/accounts/examinations

Assistant Registrar : Good academic record plus Masters degree with at least 55% marks or its equivalent **Desirable :** Proficiency in handling finance/accounts

N.B. Thirty per cent of the total posts are reserved for women candidates

The University reserves the right to

- A Keep vacant any of the advertised posts without assigning reasons
- B Relax any of the prescribed qualifications for the Faculty of Music and Dance at its discretion
- C Consider and appoint a person who may not have applied

Application format

- 1 Name of Post applied for
- 2 IPO/DD no with amount & date
- 3 Name of applicant
- 4 Father's name
- 5 Date of birth
- 6 Nationality
- 7 Permanent address
- 8 Address for correspondence
- 9 Cast (ST/SC/OBC/Gen)
- 10 Academic qualification (Higher Secondary to Doctoral degree) with name of Board/university, marks, percentage, di-

vision/class.

- 11 Professional Qualification (Music, Dance, Painting, etc.)
 - 12 Experience (Teaching/Non-teaching)
 - 13 Publications
 - 14 Experience as performer in AIR/Doordarshan/State, National and International Conferences and Festivals
 - 15 Present employment with pay details.
- I, _____ the applicant for the post of _____ do hereby declare that the entries made by me in this

application are correct to the best of my knowledge and belief

Place & Date Signature of Applicant

Application in six copies on plain paper with full enclosures with IPO/Bank Draft of Rs. 100 (for SC/ST Rs 25) and Rs 50 (Rs. 18/- for SC/ST) for the posts of Accompanists drawn in favour of the Registrar, Indira Kala Sangeet Vishwavidyalaya, Khairagarh (M P) 491 881 payable at SBI Khairagarh must reach by 30th March, 1998.

Khairagarh U.G. PATHAK
Dated : 27.1.98 Actg. Registrar (Admn.)



DR. HARI SINGH GOUR UNIVERSITY, SAGAR (M.P.)

ADVERTISEMENT No. R-1/1998

Applications on the prescribed forms (with precs in ten copies) are invited from eligible candidates for the following posts in the University Teaching Departments as mentioned here under

Professor	Pay Scale Rs 4500-150-5700-200-7300
Reader	Pay Scale Rs 3700-125-4950-150-5700
Lecturer	Pay Scale Rs 2200-75-2800-100-4000
Asstt Director (Lady)	
Physical Education	Pay Scale Rs 2200-75-2800-100-4000
Technical Assistant	Pay Scale Rs 1640-60-2600-75-2900 (non U G C)

The qualifications and pay scales are as prescribed by the University Grants Commission/AICTE and State Government. The detailed instructions shall be supplied to the candidates with the application forms.

Prescribed application forms together with details of qualifications and other information may be obtained from the Registrar by making a written request accompanied by a crossed Demand Draft of Rs 100/- (Rs 50/- only in case of SC/ST candidates supported by caste certificate) payable to the Registrar, Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M P) and a self-addressed envelope (5"x11") bearing postage stamps worth Rs 12/- Application duly filled in accompanied by certified copies of marks sheets and testimonials should reach the Registrar on or before 4.30 P.M. of 21.3.1998. The envelope containing the application should be superscribed as 'APPLICATION FOR THE POST OF

ENGLISH : Professor - 1 (G), Reader - 2 (1-G) (1-ST) (One specialisation English Language Teaching), Lecturer - 3 (1-ST) (1-SC), (1-OBC), **SANSKRIT** : Lecturer - 1 (1-G) Temporary likely to be made permanent **LINGUISTICS** : Professor-1 (G), **YOUTH WELFARE & CULTURAL ACTIVITIES PERFORMING ARTS** : Reader (1-G), Lecturer (1-G), **HINDI** : Reader - 2 (1-ST) (1-SC) Lecturer - 3 (1-ST), (2-G), **COMMUNICATION & JOURNALISM** : Professor-1 (G), Reader-1 (G), Lecturer-1 (G), **POLITICAL SCIENCE & PUBLIC ADMINISTRATION** : Reader - 3 (1-ST), (2-G) (One in regional politics), Lecturer-1 (1-ST), **PSYCHOLOGY** : Professor-1 (ST) Lecturer-1 (G), **SOCIOLOGY & SOCIAL WORK** : Lecturer-1 (ST), **PHILOSOPHY** : Professor-1 (ST), Reader-1 (ST), **COMMERCE** : Lecturer-1 (ST), **CRIMINOLOGY** : Professor-1 (ST), **ECONOMICS** : Professor-1 (ST), Reader-1 (ST) Lecturer-1 (ST) **ANCIENT INDIAN HISTORY & ARCHAEOLOGY** : Lecturer-1 (ST), **GEOGRAPHY** : Lecturer-1 (ST), **CHEMISTRY** : Reader-1 (ST), **BOTANY** : Lecturer-1 (ST), **LAW** : Professor-1 (ST), **ANTHROPOLOGY** : Professor-1 (ST), Reader-1 (ST), **MATHS** : Reader-1 (ST), Lecturer-2 (1-ST), (1-SC), **PHYSICS** : Reader-1 (ST), Lecturer-2 (1-ST), (1-SC), **ZOOLOGY** : Professor-1 (ST), Lecturer-3 (1-ST) (1-OBC) (1-G), **APPLIED GEOLOGY** : Reader-1 (1-ST), Lecturer-4, (1-ST) (1-SC), (1-OBC), (1-G), **CENTRE OF ADVANCED STUDIES IN GEOLOGY** : Lecturer-1 (ST), **PHARMACEUTICAL SCIENCES** : Lecturer-2 (1-ST), (1-G) Temporary likely to be continued **COMPUTER SCIENCE & APPLICATIONS** : Professor-1 (G) (Specialisation - Micro Processor), **BUSINESS MANAGEMENT** : Professor -1 (G) (Specialisation in Marketing Trade), Professor-1 (G) Endowment Chair (Specialisation in Personnel/Strategic Management/Organisational Behaviour Business Policy), Lecturer-1 (G) (Specialisation in Computer Applications European Languages), Lecturer-1 (SC), **PHYSICAL EDUCATION** : Assistant Director Lady-1 (G) **UNIVERSITY COLLEGE OF EDUCATION** : Asstt Professor-1 (ST), Lecturer-1 (ST), Craft Instructor-1 (ST) **AVRC** : Technical Assistant-1 (G)

Abbreviations : ST - Scheduled Tribe, SC - Scheduled Caste, OBC - Other Backward Caste, G - General, Spl - Specialisation

Reservation for women candidate will be given as per Govt Rules
Madhyam 9934/98

REGISTRAR

CENTRAL INSTITUTE OF FISHERIES EDUCATION
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(I.C.A.R.)

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ADMISSION NOTICE 1998-1999

All India Competitive Examination for Admission to Ph.D. Programme for the academic session 1998-1999 commencing from 01.09.1998 will be held on 5th July 1998 at Mumbai :

S.No.	Name of Discipline	No. of Seats
1.	Fisheries Resources Management/Inland Aquaculture	20
2.	Mariculture	10
	Total	30

(Out of which 5 seats are reserved for SC & 2 for ST)

ELIGIBILITY QUALIFICATIONS :

Masters degree in Fisheries Management (FM)/Inland Fisheries Administration and Management (IFAM)/Aquaculture/Mariculture/Industrial Fisheries/Marine Biology/Coastal Aquaculture (OR) Master of Fisheries Science (OR) Diploma in Fisheries Science (D.F.Sc.) provided candidate holds a Bachelor's degree in Biological Science and has 2 years of experience (either prior to or obtaining D.F.Sc) in Fisheries development work, as evidenced by publications (OR) M.Sc in Fish and Fisheries and related disciplines with at least 60% marks or with OGPA of 7.5 out of 10.00 or 3.75 out of 5.00 or 3.00 out of 4 or 2.25 out of 3 (for SC/ST candidates 55% marks or with OGPA of 7.00 out of 10 or equivalent OGPA in 5, 4 and 3 point scale). The duration of Ph.D course for the candidates with B.F.Sc and M.F.Sc stream (4+2 years) will be 3 years (6 semesters). However for others it will be 4 years (8 semesters) of which one year will be for remedial courses in fisheries.

AGE LIMIT :

The minimum age limit for admission shall be 22 years as on 31.08.1998. No relaxation in age limit is allowed.

There is a provision for Awarding institutional fellowship to selected candidates @ Rs. 2200/- p.m.

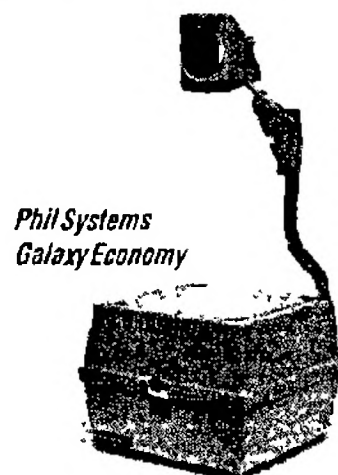
Prescribed Application Form alongwith information Bulletin for the Entrance Examination and Admission for the Ph.D Programme can be obtained from the Sr. A.O./REGISTRAR, CIFE, MUMBAI-61. Request for information Bulletin and Application Form to be sent by post may be made upto 23.05.1998. But may also be obtained in person at the CIFE till 30.05.1998. When given in person at the CIFE, the charge for the same will be Rs. 35/- in the shape of crossed Demand Draft but if it is to be sent by post a crossed Demand Draft of Rs. 50/- will be required, to be drawn in favour of "ICAR UNIT/CIFE, MUMBAI, STATE BANK OF INDIA, VERSOVA BRANCH, MUMBAI-400 061". Request for this through Cheque/Postal Order/VPP will not be entertained. The Admit Card for the Entrance Examination to the eligible candidates will be sent by post. Any postal delay in the Admit Card reaching the candidates will not be the responsibility of the CIFE. The last date of receipt of filled in Application Form is **30.05.1998**.

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